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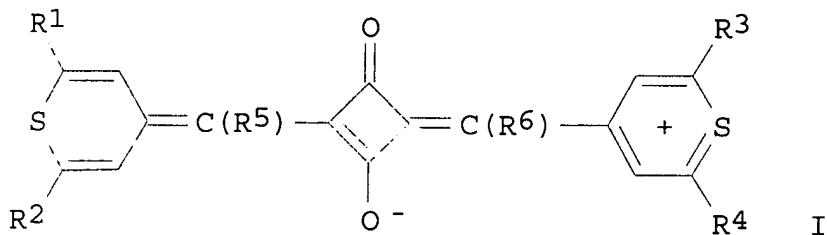
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L4 45 L3

L4 ANSWER 1 OF 45 CA COPYRIGHT 1996 ACS  
124:215830 New squarylium compounds for thermal imaging. Anon. (UK).  
Res. Discl., 376, P532 37624 (English) 1995. CODEN: RSDBS. ISSN:  
0374-4353. OTHER SOURCES: MARPAT 124:215830.

GI



AB Squarylium compds. I ( $R_1-R_4 = C_1-C_8$  alkyl;  $R_5,R_6 = C_1-C_8$  alkyl,  $C_6-C_{10}$  aryl) which absorb intensely in the IR region are excellent candidates for thermal transfer imaging. Absorption profiles of these compds. depend on the choice of the substituent groups  $R_1-R_6$ . This variation in absorption maxima and profiles offers the opportunity for better matching the absorption profile of the IR absorbing material of the donor element to the output characteristics of the IR/near-IR laser, which can afford improved photothermal efficiency and less color contamination in the transferred image resulting from transfer of the IR absorbing material.

L4 ANSWER 2 OF 45 CA COPYRIGHT 1996 ACS

124:41396 Imaging medium comprising super acid precursor and dye capable of absorbing actinic radiation. Grasshoff, Jurgen M.; Marshall, John L.; Minns, Richard A.; Puttick, Anthony J.; Taylor, Lloyd D.; Telfer, Stephen J. (Polaroid Corp., USA). U.S. US 5453345 A 950926, 26 pp. Cont.-in-part of U.S. 5,286,612. (English). CODEN: USXXAM. APPLICATION: US 93-141852 931022. PRIORITY: US 92-965161 921023.

AB An acid can be generated by exposing a mixt. of a superacid precursor and a dye to actinic radiation of a 1st wavelength which does not, in the absence of the dye, cause decomprn. of the superacid precursor to form the corresponding superacid, thereby causing absorption of the actinic radiation and decomprn. of part of the superacid precursor, with formation of a protonated product derived from the dye, then irradiating the mixt. with actinic radiation of a 2nd wavelength, thereby causing decomprn. of part of the remaining

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superacid precursor, with formation of unbuffered superacid. Preferably, following these irradiations, the imaging medium is heated while the superacid is admixed with a secondary acid generator capable of being thermally decompd. to form a second acid, the thermal decompn. of the secondary acid generator being catalyzed by the presence of the superacid. The acid generation process may be used for imaging by bringing the superacid or second acid into contact with an acid-sensitive material which changes color on contact with acid, or the superacid may be used to trigger polymn., depolymn. or other reactions.

L4 ANSWER 3 OF 45 CA COPYRIGHT 1996 ACS

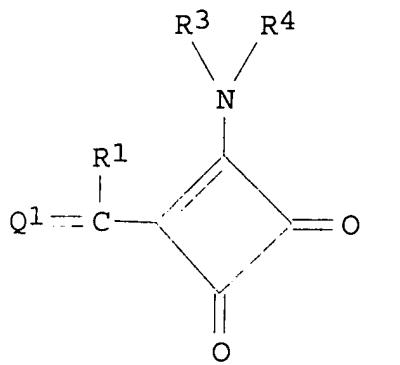
123:70411 Laser-induced thermal transfer process. Reardon, Joseph Edward; Serino, Anthony J. (du Pont de Nemours, E. I., and Co., USA). PCT Int. Appl. WO 9425282 A1 941110, 37 pp. DESIGNATED STATES: W: JP; RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE. (English). CODEN: PIXXD2. APPLICATION: WO 94-US4299 940425. PRIORITY: US 93-55496 930430.

AB A laser-induced melt transfer process is described which uses a melt viscosity modifier and in which a post-transfer treatment is used to substantially eliminate back-transfer. The use of viscosity modifier provides higher d. images, reduces sensitivity to energy in the melt process, allows the use of lower concn. of laser-absorbing component, and improved durability. The material can be used for lithog. printing plates.

L4 ANSWER 4 OF 45 CA COPYRIGHT 1996 ACS

122:316912 Cyclobutenedione intermediates for the preparation of squarylium dyes. Allen, Richard M.; Chu, Peter K.; Lee, John W.; McGowan, Donald A.; Mischke, Mark R.; Ramos, Socorro M.; Telfer, Stephen J. (Polaroid Corp., USA). U.S. US 5354873 A 941011, 37 pp. Cont.-in-part of U.S. 5,227,498. (English). CODEN: USXXAM. APPLICATION: US 92-979250 921120. PRIORITY: US 91-795034 911120.

GI



AB The squaric acid dye intermediates have the formula I [Q1 = pyrylium, thiopyrylium, selenopyrylium, benzopyrylium, benzothiopyrylium, benzoselenopyrylium; R1 = H, C1-6 alkyl; R3 = H, C1-6 alkyl or acyl; R4 = H, C1-6 alkyl or acyl, amino, alkylamino, dialkylamino (C1-6 alkyl), or NR3R4 = heterocyclic group contg. no addnl. hetero atoms]. The presence of the amino group on the squarylium ring enables minor changes in absorption wavelength of the final dye to be achieved by modifications of this group, and also allows functional groups to be incorporated into the dye without changing the chromophoric groups.

L4 ANSWER 5 OF 45 CA COPYRIGHT 1996 ACS

122:303007 Processes and compositions for photogeneration of acid.

Takiff, Larry C.; Telfer, Stephen J.; Waterman, Kenneth C. (Polaroid Corp., USA). U.S. US 5401607 A 950328, 26 pp. Cont.-in-part of U.S. 5,227,277. (English). CODEN: USXXAM. APPLICATION: US 93-84759 930629. PRIORITY: US 91-686502 910417.

AB An IR sensitive acid-generating medium comprises a binder, an iodonium salt; and a squarylium dye which is capable of absorbing IR radiation having a wavelength within the range of .apprx.700-1200 nm, and has a squarylium ring the 1- and 3-positions of which are each connected, via a single sp<sup>2</sup> C atom, to a pyrylium, thiopyrylium, benzopyrylium or benzthiopyrylium nucleus, .gtoreq.1 of the sp<sup>2</sup> C atoms having a H atom attached thereto, and the 2-position of the squarylium ring bearing an O-, amino or substituted amino, or sulfonamido group.

## L4 ANSWER 6 OF 45 CA COPYRIGHT 1996 ACS

121:69651 Process for thermochemical generation of acids for thermal imaging materials. Boggs, Roger A.; Grasshoff, Jurgen M.; Mischke, Mark R.; Puttick, Anthony J.; Telfer, Stephen J.; Waller, David P.; Waterman, Kenneth C. (Polaroid Corp., USA). U.S. US 5278031 A 940111, 19 pp. (English). CODEN: USXXAM. APPLICATION: US 92-965172 921023.

AB Certain squaric acid derivs. are useful for the thermochem. generation of acids. The squaric acid derivs. may be used in thermal imaging materials in conjunction with acid-sensitive materials which undergo a color change when contacted by the acids generated from the squaric acid derivs. Preferably, the acid-sensitive materials undergo an irreversible color change, so that the images can be fixed by neutralizing all the acids generated with excess bases, thereby preventing further color change in the images during long term storage.

## L4 ANSWER 7 OF 45 CA COPYRIGHT 1996 ACS

121:69344 Phototackification of polymer blends. Simmons, H. E., III; Hertler, W. R.; Sauer, B. B. (Experimental Stn., DuPont Cent. Res. and Dev., Wilmington, DE, 19880-0328, USA). J. Appl. Polym. Sci., 52(6), 727-35 (English) 1994. CODEN: JAPNAB. ISSN: 0021-8995. OTHER SOURCES: CJWILEY.

AB A direct single-layer phototackification scheme is demonstrated making use of chem. amplification and photoinduced microphase sepn. in an initially nontacky miscible blend of acid-labile poly(2-tetrahydropyranyl methacrylate) and poly(2-tetrahydropyranyl acrylate), tacky poly(2-phenylethyl acrylate), and a photoacid generator. The mechanism involves four processes: photoacid generation, acid migration, acetal ester cleavage, and phase sepn. Thin film in situ IR studies showed the rate of acid migration and acetal ester cleavage to be strongly dependent on the presence of ambient water and polymer matrix ( $T_g$ ) effects. The rate of phase sepn. is affected by polymer mol. wt. A no. of approaches to minimize humidity sensitivity are discussed. The system has been sensitized to both UV and near-IR radiation.

## L4 ANSWER 8 OF 45 CA COPYRIGHT 1996 ACS

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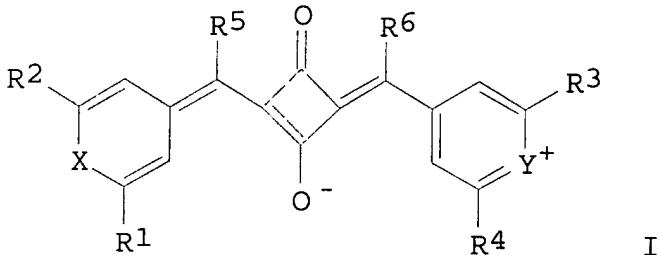
120:311739 Single layer dry processible photothermal-sensitive element.  
 Simmons, Howard E., III (du Pont de Nemours, E. I., and Co., USA).  
 U.S. US 5286604 A 940215, 6 pp. (English). CODEN: USXXAM.  
 APPLICATION: US 92-981346 921125.

AB A photothermal-tackifiable compn., useful as a coating on a substrate, consists of an optically clear blend of .gtoreq.2 polymers, .gtoreq.1 of which is capable of undergoing a thermochem. reaction, and a photothermog. compd., an IR absorbing dye that generates locally high heat on exposure to IR or near-IR radiation. Also disclosed is a process for coating such a compn. on a support, exposing the compn. to IR radiation and toning the image-wise exposed compn.

L4 ANSWER 9 OF 45 CA COPYRIGHT 1996 ACS

120:167007 IR absorbing Se- or Te-based squarylium dye for laser-induced thermal dye transfer. Burberry, Mitchell S.; Tutt, Lee W.; Detty, Michael R. (Eastman Kodak Co., USA). U.S. US 5256620 A 931026, 8 pp. (English). CODEN: USXXAM. APPLICATION: US 92-992233 921217.

GI



AB Thermal transfer media giving images while affording a broader selection of absorbance peaks than from frequently used dyes comprise supports and ink layers contg. the title dye. Thus, a dye donor element contg. I (X,Y = Te; R1-4 = tert-Bu; R5, R6 = H) (II) 0.16, magenta dye 0.44, and cellulose acetate propionate 0.31 g/m<sup>2</sup> on PET support layer gave images having Status A Green d. 0.98 and 0.90 (at 873 and 981 nm), vs. 0.95 and 0.00, resp., using a bis(chalcogenopyrylo)polymethine dye instead of II.

L4 ANSWER 10 OF 45 CA COPYRIGHT 1996 ACS

120:65902 Imaging process, and imaging medium for use therein.

Waterman, Kenneth C. (Polaroid Corp., USA). U.S. US 5227277 A  
930713, 19 pp. (English). CODEN: USXXAM. APPLICATION: US  
91-686502 910417.

AB An imaging medium comprises a layer, depolymerizable by exposure to actinic radiation and substantially non-tacky prior to depolymn. but becoming tacky upon at least partial depolymn., disposed adjacent a layer of an imaging material, which has a cohesive strength greater than the adhesive strength between the imaging material and the depolymerizable layer prior to depolymn. This medium is imagewise exposed to radiation, thereby causing at least partial depolymn. of the polymer in the exposed areas, so rendering these exposed areas tacky and firmly attaching exposed areas of the imaging material layer to the depolymerizable layer. The unexposed areas of the imaging material are then removed from the depolymerizable layer.

L4 ANSWER 11 OF 45 CA COPYRIGHT 1996 ACS

120:42032 IR direct-write thermal imaging elements. Kellogg, Reid E.; Ma, Sheau Hwa; Savini, Steven; Monroe, Bruce Malcolm; Beckerbauer, Richard; Covelskie, Richard Albert; Taylor, Harvey Walter, Jr.; Weed, Gregory Charles (du Pont de Nemours, E. I., and Co., USA). PCT Int. Appl. WO 9303928 A1 930304, 65 pp. DESIGNATED STATES: W: AU, CA, JP; RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, SE. (English). CODEN: PIXXD2. APPLICATION: WO 92-US6833 920814. PRIORITY: US 91-745924 910816; US 92-885620 920519; US 92-925621 920806.

AB Peel-apart elements for laser-induced IR direct-write thermal imaging comprise a dimensionally stable support; an active layer comprising an IR-absorbing material and a polymeric binder, an adhesive layer, and a cover sheet, wherein the adhesive relationship is such that, on peeling apart, regions of the active layer exposed with an IR radiation adhere to the support while unexposed regions of the active layer adhere to the adhesive layer and the cover sheet.

L4 ANSWER 12 OF 45 CA COPYRIGHT 1996 ACS

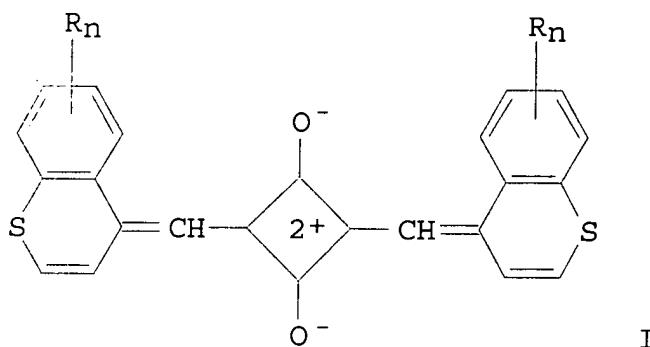
119:282314 Infrared ray-heating-type thermal-transfer recording sheets.

Murata, Jukichi; Ozawa, Tetsuo; Kawana, Makoto; Urano, Toshoshi (Mitsubishi Chem Ind, Japan). Jpn. Kokai Tokkyo Koho JP 05155143 A2

08/479,077

930622 Heisei, 8 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP  
91-324860 911209.

GI



AB The title sheets, which are used in thermal transfer recording using IR ray, comprise a base film with a coating of a recording layer contg. a heat-transferable dye and, as a IR-absorbing compd., a squarylium compd. I ( $R = H$ , alkyl, alkoxy, halo;  $n = 0-2$ ). The sheets show good transferability and provide clear, high d. images. Thus, a PET film was coated with a compn. contg. 1,1,2-tricyano-2-(*p*-ethylbutylaminophenyl)ethylene, I ( $R = H$ ), and cellulose acetate to give a thermal-transfer sheet.

L4 ANSWER 13 OF 45 CA COPYRIGHT 1996 ACS

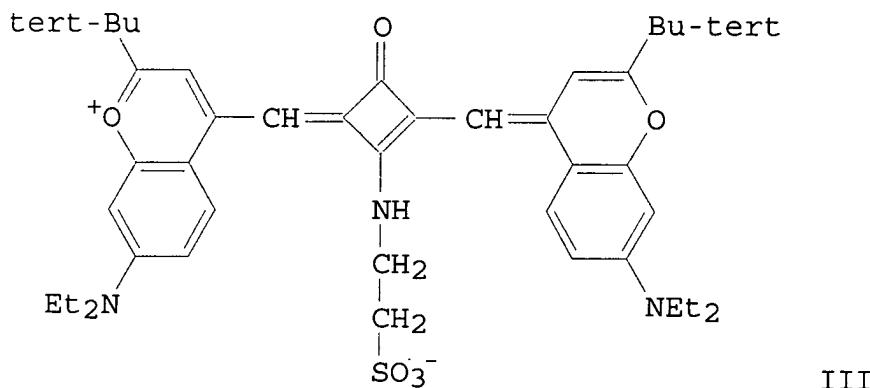
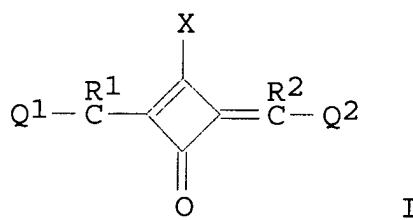
119:237804 Advances in phototackification. Simmons, Howard E., III; Hertler, Walter R. (Cent. Res. Dev., E.I. duPont de Nemours and Co., Wilmington, DE, 19880-0328, USA). Proc. SPIE-Int. Soc. Opt. Eng., 1912(Color Hard Copy and Graphic Arts II), 362-72 (English) 1993. CODEN: PSISDG. ISSN: 0277-786X.

AB A direct single-layer neg.-working phototackification system with application to 4-color half-tone proofing has been invented. It makes use of chem. amplification and is based on photoinduced microphase sepn. in an initially non-tacky miscible blend of acid-labile and tacky polymers. Factors which influence tack generation will be discussed. The system has been sensitized both in the UV for conventional analog proofing and in the near-IR for digital proofing.

L4 ANSWER 14 OF 45 CA COPYRIGHT 1996 ACS

119:205472 Squarylium dyes and intermediates, their preparation and use in thermal-imaging materials. Allen, Richard M.; Chu, Peter K.; Lee, John W.; McGowan, Donald A.; Mischke, Mark R.; Ramos, Socorro M.; Telfer, Stephen J. (Polaroid Corp., USA). PCT Int. Appl. WO 9309956 A1 930527, 89 pp. DESIGNATED STATES: W: CA, JP, KR; RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, SE. (English). CODEN: PIXXD2. APPLICATION: WO 92-US9992 921120. PRIORITY: US 91-795034 911120; US 91-795341 911120.

GI



AB The dyes have the structure I, where Q1 and Q2 are chromophoric groups, R1 and R2 are H or a (cyclo)aliph. group, and X is an amino or C-linked org. group which can be used to modify slightly the absorption wavelength or to provide functionality.

2-Tert-butyl-7-(dimethylamino)-4-methylbenzopyrylium

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tetrafluoroborate (II) was condensed 1:1 with di-Bu squarate, the BuO group in the product was displaced by taurine, and the resulting aminocyclobutenedione deriv. was condensed with addnl. II to give III, .lambda.max 814 nm (.epsilon. 333,000).

L4 ANSWER 15 OF 45 CA COPYRIGHT 1996 ACS

119:205457 Squarylium dyes based on 2,6-di-tert-butylselenopyrylium or -telluropyrylium nuclei. Detty, Michael R.; Henne, Bruce (Off. Imaging Res. Technol. Dev., Eastman Kodak Co., Rochester, NY, 14650-2106, USA). *Heterocycles*, 35(2), 1149-56 (English) 1993. CODEN: HTCYAM. ISSN: 0385-5414.

AB The condensation of 2,6-di-tert-butyl-4-methylselenopyrylium and -telluropyrylium salts with squaric acid gives squarylium dyes with absorption max. 847 and 910 nm, resp., in CH<sub>2</sub>Cl<sub>2</sub>. The condensation of a 2,6-di-tert-butyl-4-ethylselenopyrylium salt with squaric acid gives the corresponding di-Me-substituted squarylium dye with an absorption max. at 906 nm. Electrochem. redn. and oxidn. potentials of these dyes are compared to those of the corresponding squarylium dyes based on pyrylium and thiopyrylium nuclei.

L4 ANSWER 16 OF 45 CA COPYRIGHT 1996 ACS

118:202170 Laminar thermal imaging material. Kelly, Neal F. (Polaroid Corp., USA). PCT Int. Appl. WO 9209443 A1 920611, 49 pp.

DESIGNATED STATES: W: AU, CA, JP, KR; RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE. (English). CODEN: PIXXD2.

APPLICATION: WO 91-US8604 911118. PRIORITY: US 90-616854 901121.

AB A laminar stress-absorbing thermal imaging material comprises a pair of sheet members and .gtoreq.1 layer of an image-forming substance confined therebetween, wherein the thermal imaging material is actuatable in response to intense image-forming radiation for prodn. of an image and has a tendency toward stress-induced adhesive failure at the interface therein having the weakest adhesivity and such tendency is reduced by a polymeric stress-absorbing layer in close proximity to the interface.

L4 ANSWER 17 OF 45 CA COPYRIGHT 1996 ACS

118:158008 Thermal imaging medium. Chang, Kuang C. (Polaroid Corp., USA). PCT Int. Appl. WO 9209442 A1 920611, 52 pp. DESIGNATED

STATES: W: AU, CA, JP, KR; RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE. (English). CODEN: PIXXD2. APPLICATION: WO

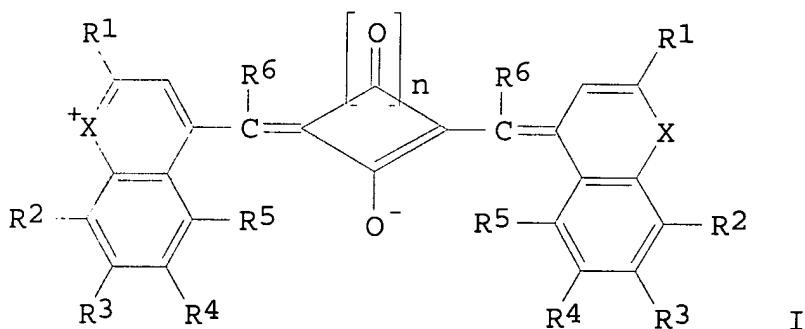
91-US8601 911118. PRIORITY: US 90-616982 901121.

AB A thermal imaging medium, actuatable in response to an intense radiation for prodn. of an image, comprises a 1st sheet-like web material, being transparent to the radiation and having .gtoreq.1 surface zone or layer of a polymeric material heat-activatable upon exposure of the imaging medium to a brief and intense radiation, a thermoplastic intermediate layer having a cohesiveness in excess of its adhesiveness for the surface zone or layer, a layer of a porous or particulate image-forming substance on the intermediate layer, the image-forming substance having an adhesiveness for the intermediate layer in excess of the adhesiveness of the intermediate layer for the surface zone or layer, and a 2nd sheet-like web material covering the layer of the porous or particulate image-forming substance.

L4 ANSWER 18 OF 45 CA COPYRIGHT 1996 ACS

118:104792 Squarylium and croconylium dyes, their preparation, chromone intermediates therefor, and thermochromic materials containing them. Telfer, Stephen J.; Short, Robert P.; Stroud, Stephen G.; Puttick, Anthony J.; Ramos, Socorro M.; Zuraw, Michael J. (Polaroid Corp., USA). PCT Int. Appl. WO 9209661 A1 920611, 96 pp. DESIGNATED STATES: W: CA, JP; RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE. (English). CODEN: PIXXD2. APPLICATION: WO 91-US8695 911120. PRIORITY: US 90-616639 901121.

GI



AB The dyes I [each R1 = (un)substituted alkyl or cycloalkyl; each X = 08/479,077

O, S, Se; n = 1, 2], more specifically I (R1, X, n as above; R2, R4 = H, C1-8-alkyl, halogen; R3 = H, C1-8-alkyl, Group VA or VIA or VIIA element-contg. group with the element bonded directly to the arom. ring, possibly forming with R2 or R4 a fused heterocyclic ring; R5 = H, C1-8-alkyl, halogen, C1-12-alkoxy; R6 = H, C1-6-alkyl), are prep'd. and used to convert IR radiation into heat in thermal recording materials. Thus, 3-Et<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>OH was cyclocondensed with Me<sub>3</sub>CCOCH<sub>2</sub>CO<sub>2</sub>Me to give 2-tert-butyl-7-(diethylamino)-4H-1-benzopyran-4-one, which was treated with MeMgBr to give the 4-Me benzopyrylium salt, which reacted with squaric acid to give I (R1 = CMe<sub>3</sub>, R2 = R4 = R5 = R6 = H, R3 = Et<sub>2</sub>N, X = O, n = 1) (II), with a strong absorption max. at 808 nm. Acrylonitrile-styrene copolymer contg. 20 phr II, coated on a PVC film, showed  $\lambda_{max}$  826 nm, unchanged after 15 days at 80.degree..

## L4 ANSWER 19 OF 45 CA COPYRIGHT 1996 ACS

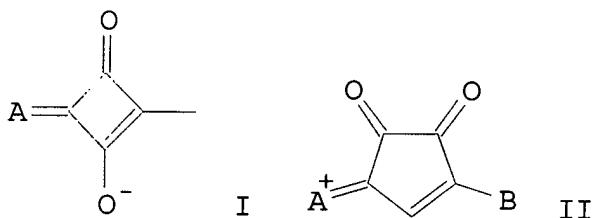
118:14032 Receptors for thermal-transfer printing. Kawakami, Sota; Kojima, Yasuo (Konica Co., Japan). Jpn. Kokai Tokkyo Koho JP 04153086 A2 920526 Heisei, 10 pp. (Japanese). CODEN: JKXXAF.  
APPLICATION: JP 90-279579 901017.

AB The title receptors for a sublimation or a melttable thermal-transfer have a photothermal transformation layer contg. an IR-absorption dye with a colorless absorption in the visible region and a thermal-transfer receptive layer on a support. The receptive layer may contain the IR-absorption dye.

## L4 ANSWER 20 OF 45 CA COPYRIGHT 1996 ACS

116:72474 Optical recording media. Santo, Takeshi; Mihara, Chieko; Sugata, Hiroyuki (Canon K. K., Japan). Jpn. Kokai Tokkyo Koho JP 03126581 A2 910529 Heisei, 22 pp. (Japanese). CODEN: JKXXAF.  
APPLICATION: JP 89-266966 891012.

GI

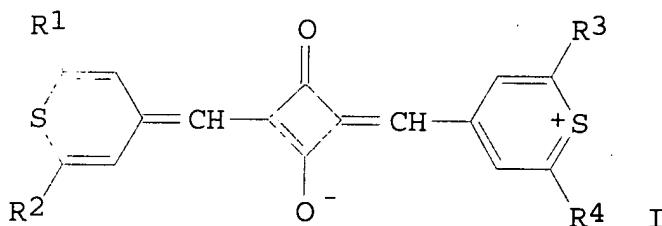


AB The title laser optical media with improved heat and light resistance and long-term storability contain squarylium dyes I and/or croconium dyes II (A<sup>+</sup> = org. cation group; B = org. group) and a carboxylic acid metal complex.

L4 ANSWER 21 OF 45 CA COPYRIGHT 1996 ACS

115:185546 Donor element for thermal imaging containing infra-red absorbing squarylium compound. Kellogg, Reid E.; Laganis, Evan D.; Ma, Sheau Hwa (USA). U.S. US 5019549 A 910528, 5 pp. (English). CODEN: USXXAM. APPLICATION: US 90-603278 901025.

GI



AB The title dyes I (R1-4 = C1-8 alkyl) are useful as the colorant in the donor element of a thermal transfer sheet. PET (75 .mu.m) was treated first with corona then with a soln. contg. Red P 1339 0.188, cellulose acetate butyrate 0.188, SQS (I; R1-4 = tert-Bu) 0.0075, and CH<sub>2</sub>Cl<sub>2</sub> 9.62 parts to give a donor sheet, which when placed in contact with a receptor sheet and exposed to 830 nm light showed intense magenta image, vs. no image without SQS.

L4 ANSWER 22 OF 45 CA COPYRIGHT 1996 ACS

112:200588 Synthesis of N-octadecylsquarylium dye under high pressure.

Tanaka, Motoo; Yasumoto, Masahiko; Shibuya, Isao; Kawabata, Yasujiro; Nakamura, Takayoshi; Tachibana, Hiroaki; Manda, Eiichiro; Sekiguchi, Tatsuo (Natl. Chem. Lab. Ind., Tsukuba, 305, Japan). Nippon Kagaku Kaishi (11), 1937-41 (Japanese) 1989. CODEN: NKAKB8. ISSN: 0369-4577.

GI

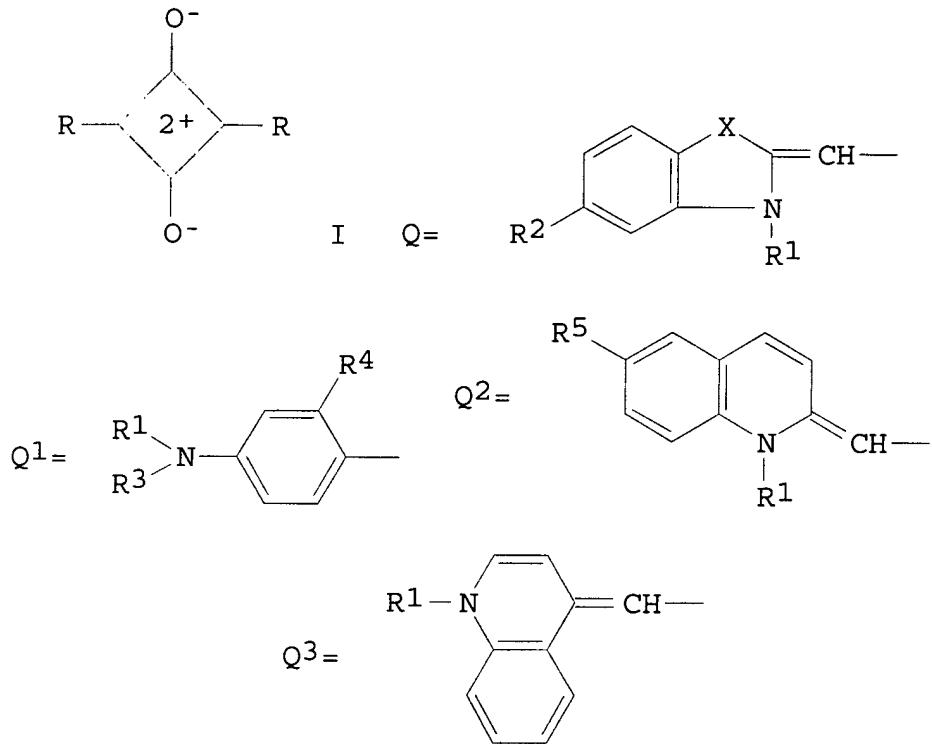
\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB Eleven N-octadecylsquarylium dyes I ( $R = \text{octadecyl}$ ,  $R_1 = H$ ,  $X = \text{CMe}_2$ , Se, S;  $R_1 = \text{Me}$ ,  $X = \text{Se}$ ,  $R_1 = \text{Cl}$ ,  $X = S$ ), II (same  $R$ ;  $R_2 = H$ , Me), III (same  $R$ ,  $R_3 = H$ , Cl, O<sub>2</sub>N), and IV (same  $R$ ) were prep'd. under high-pressure conditions. The precursors were heated with squaric acid at 160.degree. for 20 h in a sealed capsule at 400-800 MPa. The prepn. of II was more efficient in the presence of ClCH<sub>2</sub>CO<sub>2</sub>H or Cl<sub>3</sub>CCO<sub>2</sub>H. UV, IR, and NMR measurements showed that I-III have a 1,3-bonded squarylium ring. IV has a 1,2-bonded ring.

L4 ANSWER 23 OF 45 CA COPYRIGHT 1996 ACS

112:120612 Manufacture of squarylium dyes. Tanaka, Motoo; Sekiguchi, Tatsuo; Kawabata, Kojiro; Nakamura, Takayoshi; Tachibana, Hiroaki; Manda, Eiichiro; Yasumoto, Masahiko; Shibuya, Isao (Agency of Industrial Sciences and Technology, Japan). Jpn. Kokai Tokkyo Koho JP 01230674 A2 890914 Heisei, 5 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 88-59126 880311.

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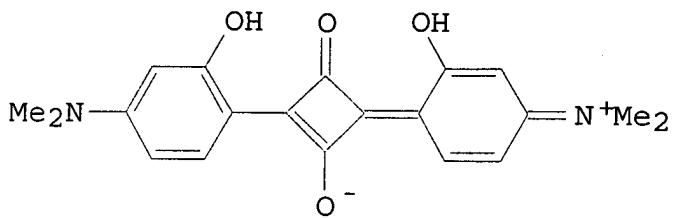


AB The title dyes I (R = Q, Q<sub>1</sub>, Q<sub>2</sub>, Q<sub>3</sub>; R<sub>1</sub> = C<sub>18</sub>H<sub>37</sub>; R<sub>2</sub> = H, Me, Cl; R<sub>3</sub> = Me; R<sub>4</sub> = H, Me; R<sub>5</sub> = H, Cl; X = CMe<sub>2</sub>, Se, S) were prep'd. by dehydrocondensation of squaric acid with appropriate intermediates under a pressure >1000 kg/cm<sup>2</sup> in an org. solvent. A suspension of 2,3,3-trimethyl-1-octadecylindolinium p-chlorobenzenesulfonate and squaric acid in CH<sub>2</sub>Cl<sub>2</sub> was sealed in a Teflon capsule, pressured to about 7000 kg/cm<sup>2</sup>, heated to 160.degree., pressured to 8000 kg/cm<sup>2</sup>, and kept for 20 h to give 95% I (R = Q; R<sub>2</sub> = H; X = CMe<sub>2</sub>).

L4 ANSWER 24 OF 45 CA COPYRIGHT 1996 ACS

111:79483 Resin boards for light convergence. Ishizaka, Yukio; Numa, Tatsuya (Nippon Kayaku Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 63235370 A2 880930 Showa, 5 pp. (Japanese). CODEN: JKXXAF.  
APPLICATION: JP 87-68791 870325.

GI



AB The title boards, which absorb light of  $\lambda \geq 600$  nm and efficiently generate light having higher wavelength contain squarylium compds. The boards are useful as solar cells, semiconductor laser LEDs, scintillators, signals, etc. Thus, 100 parts polycarbonate resin pellets were kneaded with 0.05 parts I, spray-granulated, and injection molded to give a 3-mm board, which absorbed light of 643 nm and radiated light of 653 nm from the side face.

L4 ANSWER 25 OF 45 CA COPYRIGHT 1996 ACS

111:15399 Optical recording medium. Yabe, Masao; Inagaki, Yoshio (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 63159090 A2 880701 Showa, 12 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 86-307374 861223.

AB In obtaining a laser recording medium by forming a recording layer on a support, the support is coated with a soln. of a colorant in a solvent contg. a F-contg. compd.

L4 ANSWER 26 OF 45 CA COPYRIGHT 1996 ACS

110:125550 Optical recording medium with recording layer containing pyrylium derivative and metal chelate. Fukui, Tetsuro; Oguchi, Yoshihiro; Miura, Kyo (Canon K. K., Japan). Jpn. Kokai Tokkyo Koho JP 63168393 A2 880712 Showa, 25 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 86-311331 861230.

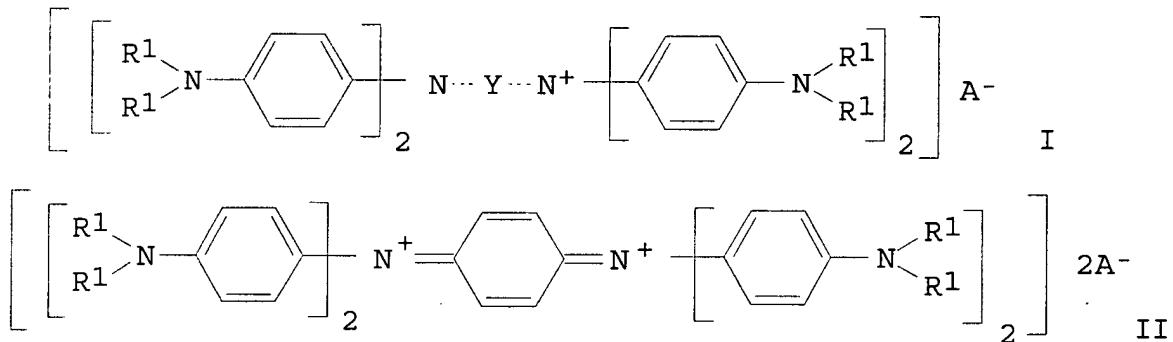
AB In the title recording medium, a recording layer contains  $\geq 1$  pyrylium deriv. and  $\geq 1$  metal chelates. The metal chelates are chelates of Zn, Cu, Ni, Co, Mn, Pd or Zr. The optical recording medium shows high reflectance and improved storage stability.

L4 ANSWER 27 OF 45 CA COPYRIGHT 1996 ACS

08/479,077

110:105091 Optical recording material containing pyrylium derivative and diamine (salt). Oguchi, Yoshihiro; Fukui, Tetsuro (Canon K. K., Japan). Jpn. Kokai Tokkyo Koho JP 63168392 A2 880712 Showa, 27 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 86-311330 861230.

GI



AB In the title optical recording medium, a recording layer contains .gtoreq.1 pyrylium deriv. and .gtoreq.1 selected from aminium salts I and diimiuim salts II [R1 = H, (substituted) alkyl; Y = p-C6H4, p-C6H4-C6H4-p; A = anion]. Said optical recording medium is useful for optical disks and optical cards with improved storage and reading stabilities.

L4 ANSWER 28 OF 45 CA COPYRIGHT 1996 ACS

110:48588 Method for manufacture of optical recording material. Yabe, Masao; Inagaki, Yoshio (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 63193348 A2 880810 Showa, 11 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 87-25008 870204.

AB The title method involves coating a substrate with a compn. prep'd. by dissolving a dye in a solvent contg. a F-substituted nitro compd. (e.g., CF3NO2). Optionally, the substrate may comprise a polycarbonate, PMMA, an epoxy resin, a polyolefin, a polyester, and/or poly(vinyl chloride). The solvent does not adversely affect the substrate.

## L4 ANSWER 29 OF 45 CA COPYRIGHT 1996 ACS

110:48587 Method for manufacture of optical recording material. Yabe, Masao; Inagaki, Yoshio (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 63193347 A2 880810 Showa, 11 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 87-25006 870204.

AB The title method involves coating a substrate with a compn. prep'd. by dissolving a dye in a solvent contg. a F-substituted amide (e.g., trifluoroacetoamide). Optionally, the substrate may comprise a polycarbonate, PMMA, an epoxy resin, a polyolefin, a polyester, and/or poly(vinyl chloride). The solvent does not adversely affect the substrate.

## L4 ANSWER 30 OF 45 CA COPYRIGHT 1996 ACS

110:48586 Method for manufacture of optical recording material. Yabe, Masao; Inagaki, Yoshio (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 63193346 A2 880810 Showa, 11 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 87-25005 870204.

AB The title method involves coating a substrate with a compn. prep'd. by dissolving a dye in a solvent contg. a F-substituted carboxylic acid (e.g., pentafluorobenzoic acid). Optionally, the substrate may comprise a polycarbonate, PMMA, an epoxy resin, a polyolefin, a polyester, and/or poly(vinyl chloride). The solvent does not adversely affect the substrate.

## L4 ANSWER 31 OF 45 CA COPYRIGHT 1996 ACS

110:48585 Method for manufacture of optical recording material. Yabe, Masao; Inagaki, Yoshio (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 63193345 A2 880810 Showa, 11 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 87-25004 870204.

AB The title method involves coating a substrate with a compn. prep'd. by dissolving a dye in a solvent contg. a F-substituted ether (e.g., pentafluoroamide). Optionally, the substrate may comprise a polycarbonate, PMMA, an epoxy resin, a polyolefin, a polyester, and/or poly(vinyl chloride). The solvent does not adversely affect the substrate.

## L4 ANSWER 32 OF 45 CA COPYRIGHT 1996 ACS

110:48584 Method for manufacture of optical recording material. Yabe, Masao; Inagaki, Yoshio (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 63193344 A2 880810 Showa, 11 pp. (Japanese).

CODEN: JKXXAF. APPLICATION: JP 87-25002 870204.

AB The title method involves coating a substrate with a compn. prep'd. by dissolving a dye in a solvent contg. a F-substituted ester (e.g., CF<sub>3</sub>COOEt). Optionally, the substrate may comprise a polycarbonate, PMMA, an epoxy resin, a polyolefin, a polyester, and/or poly(vinyl chloride). The solvent does not adversely affect the substrate.

L4 ANSWER 33 OF 45 CA COPYRIGHT 1996 ACS

110:48583 Method for manufacture of optical recording material. Yabe, Masao; Inagaki, Yoshio (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 63193343 A2 880810 Showa, 11 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 87-25001 870204.

AB The title method involves coating a substrate with a compn. prep'd. by dissolving a dye in a solvent contg. a F-substituted ketone (e.g., CF<sub>3</sub>COCF<sub>3</sub>). Optionally, the substrate may comprise a polycarbonate, PMMA, an epoxy resin, a polyolefin, a polyester and/or poly(vinyl chloride). The solvent does not adversely effect the substrate.

L4 ANSWER 34 OF 45 CA COPYRIGHT 1996 ACS

109:64516 Semiconductor laser heat-mode direct imaging with toner containing near IR light-absorbing dye. Yamaguchi, Chiseki; Hiraoka, Yuji; Kageyama, Harumichi; Ando, Tomio; Matsuoka, Shinako; Endo, Takeo (Copal Electronics Co., Ltd., Japan; Copal Co., Ltd.). Jpn. Kokai Tokkyo Koho JP 62257890 A2 871110 Showa, 5 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 86-101066 860502.

AB A near IR light-absorbing dye is included in a low-melting toner to improve the absorption of an information-modulated semiconductor laser beam for laser heat-mode direct imaging. The toner may contain a paraffin wax, the near IR light-absorbing dye such as a cyanine dye, a coloring agent such as a C black, and a charge-controlling agent. The imaging is effected by scanning with an information-modulated semiconductor laser beam on a layer of the toner coated on a receptor such as a plain paper or a film. Imagewise melted toner particles are fixed on the receptor to give a toner image and the rest of the toner particles are removed from the receptor.

L4 ANSWER 35 OF 45 CA COPYRIGHT 1996 ACS

109:63117 Dye sensitization of van der Waals surfaces of tin disulfide  
08/479,077

photoanodes. Parkinson, Bruce A. (Cent. Res. Dev. Dep., E. I. du Pont de Nemours and Co., Wilmington, DE, 19898, USA). Langmuir, 4(4), 967-76 (English) 1988. CODEN: LANGD5. ISSN: 0743-7463.  
OTHER SOURCES: CJACS.

AB The sensitization of the van der Waals surface of SnS<sub>2</sub> ( $E_g = 2.22$  eV) with >30 different dyes ( $\lambda_{max} < 2.2$  eV) was studied. The van der Waals surface of this material has several advantages for studying sensitization. It is renewable via cleavage and lacks an oxide layer under ambient conditions. The relevance of the electrochem. properties of the dyes to their sensitization behavior is discussed. Adsorption isotherms for many of the dyes were measured by relating quantum yield for electron injection to surface coverage. Both J and H aggregates and monomeric dye species sensitize n-SnS<sub>2</sub>. The photocurrent-voltage behavior of the dye was interpreted by using Spitzer's theory of electron injection into semiconductors. Sensitized photocurrents were also studied as a function of light intensity and supersensitizer concn. to aid the qual. theor. anal. Several unusual effects assocd. with the layered structure of the semiconductor were obsd. including dye intercalation, total internal reflection of the incident light, and surface phase changes.

L4 ANSWER 36 OF 45 CA COPYRIGHT 1996 ACS

108:29515 Optical information recording medium. Oguchi, Yoshihiro; Takasu, Yoshio (Canon K. K., Japan). Jpn. Kokai Tokkyo Koho JP 62132690 A2 870615 Showa, 24 pp. (Japanese). CODEN: JKXXAF.  
APPLICATION: JP 85-272810 851204.

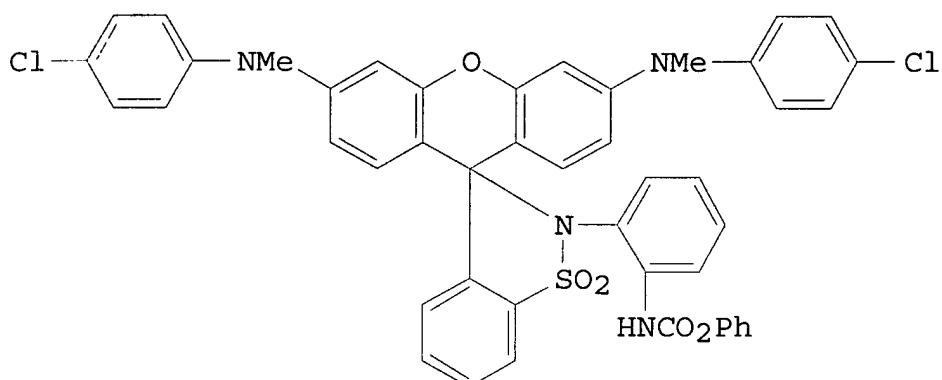
AB The title optical recording medium is characterized in that (1) the recording medium contains a mixt. of (or a lamination layer of) a heat-sensitive material, which becomes colorless or opaque when the material is heated (and cooled) to a specified temp., and a light-absorbing material contg. .gtoreq.1 pyrylium compd. and (2) displaying or reading out information is effected by heating the specified area of the recording medium to the specified temp. The optical recording medium may be a heat mode type.

L4 ANSWER 37 OF 45 CA COPYRIGHT 1996 ACS

107:187518 Thermal imaging method. Borror, Alan L.; Ellis, Ernest W. (Polaroid Corp., USA). PCT Int. Appl. WO 8607312 A1 861218, 55 pp.  
DESIGNATED STATES: W: JP; RW: DE, FR, GB, NL. (English). CODEN:  
08/479,077

PIXXD2. APPLICATION: WO 86-US1128 860523. PRIORITY: US 85-740889  
850603; US 86-861377 860514.

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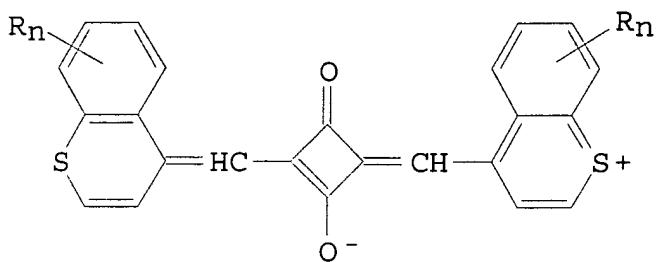
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AB A thermal imaging method is described which comprises heating imagewise a di- or triarylmethane compd. having within its structure an aryl group substituted in the ortho position to the meso C atom with a moiety ring-closed on the meso C atom directly through a N atom, which is also bonded to a group with a masked acyl substituent that undergoes fragmentation upon heating to liberate the acyl group for effecting intramol. acylation of the N atom to form a new group in the ortho position and to render the di- or triarylmethane compd. colored in an imagewise fashion. A PET support was coated with a compn. contg. I, a 2% THF soln. of poly(vinyl butyral), an IR absorber, and THF, dried and then irradiated with a laser diode (824 nm; 1.9-11.3 mW) to convert the coating from substantially colorless to magenta.

L4 ANSWER 38 OF 45 CA COPYRIGHT 1996 ACS

106:50044 Squarylium compounds. Miura, Konoe; Ozawa, Tetsuo; Iwanami, Junko (Mitsubishi Chemical Industries Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 61167681 A2 860729 Showa, 3 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 85-8730 850121.

GI



AB Title compds. I ( $R = H$ , alkyl, alkoxy, halo;  $n = 0, 1$ ), having  $\lambda_{max}$  at 800-900 nm, useful in laser-writing liq. crystal displays, electrophotog. photosensitive materials, and optical disks (no data), were prep'd. Thus, 3,4-dihydroxy-3-cyclobutene-1,2-dione was heated with 4-methylbenzothiopyrylium perchlorate in BuOH, quinoline, and benzene with azeotropic distn. of water at 95-105.degree. for 3 h to give I ( $R = H$ ) having  $\lambda_{max}$  (CHCl<sub>3</sub>) 842 nm.

L4 ANSWER 39 OF 45 CA COPYRIGHT 1996 ACS

103:151050 Liquid crystal cells. (Canon K. K., Japan). Jpn. Kokai Tokyo Koho JP 60118791 A2 850626 Showa, 10 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 83-226276 831130.

GI For diagram(s), see printed CA Issue.

AB Liq. crystal cells contain liq. crystal compns. contg. a compd. of the formula I ( $Z^- = II, III; Z1, Z2 = O, S, Se; A = pyrylium, thiapyrylium, selenapyrylium, naphthopyrylium, naphthathiapyrylium, or naphthoselenapyrylium ring; B = pyran, thiapyran, selenapyran, benzopyran, benzothiapyran, benzoselenapyran, naphthopyran, naphthothiapyran, or naphthoselenapyran ring; R-R3 = H, alkyl, alkoxy, aryl, styryl, 4-phenyl-1,3-butadienyl; RR1 and R2R3 combinations may form a benzene ring; m, n = 0, 1$ ). The liq. crystal cells are useful as laser recording type display devices. Thus, IV (2 wt.%) was dissolved in 4n-cyano-4-n-octylbiphenyl and used to prep. a laser address display cell in which the liq. crystal is homeotropically aligned. Patternwise irradn. of the cell with a laser beam and subsequent rapid cooling resulted in the formation of smectic phase having focal ionic structure, and the recorded image was clearly displayed by using a lamp provided behind the cell.

L4 ANSWER 40 OF 45 CA COPYRIGHT 1996 ACS

102:212576 Organic-dye films for optical recording. Gravesteijn, D. J.; Van der Veen, J. (Philips Res. Lab., Eindhoven, Neth.). Philips Tech. Rev., Volume Date 1983, 41(11-12), 325-33 (English) 1984. CODEN: PTREAN. ISSN: 0031-7926.

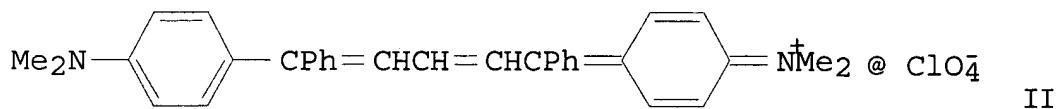
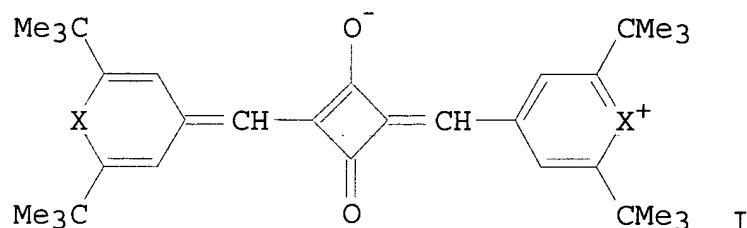
AB An investigation into the possible applications of org. dye films for optical recording with an AlGaAs laser emitting at 820 nm has indicated 2 suitable dyes: a nonionogenic squarylium dye consisting of a squarylium nucleus with thiopyrylium end-groups, and the ionogenic tetradimethylaminophenylpentamethine perchlorate. With both dyes, applied by a simple coating method, smooth and homogeneous films are obtained that give sufficient absorptance and reflectance at 820 nm. With a laser beam of relatively low energy, pits of adjustable size can be written into these films very rapidly giving a high signal-to-noise ratio (>60 dB) on read-out. An advantageous feature is that both digital and analog (video) information can be recorded in this way. The films and the information recorded in them have a good storage life.

L4 ANSWER 41 OF 45 CA COPYRIGHT 1996 ACS

102:70326 Pyrylium- or thiopyrylium-squarylium dyes and their use in recording elements. (N. V. Philips' Gloeilampenfabrieken , Neth.). Neth. Appl. NL 8300155 A 840816, 15 pp. (Dutch). CODEN: NAXXAN. APPLICATION: NL 83-155 830117.

US 4508811

GI



AB The title dyes are I ( $X = S$  or  $O$ ), which are dissolved in a polar solvent (e.g., PrOH) and deposited on an acrylic resin-coated optical recording disk support. The compns. can also contain .apprx.50% II. The title compds. have an absorption max. at 820 nm ( $X = S$ ) and 750 nm ( $X = O$ ). Pulsed laser light (of 750-800 nm wavelength) is used to record information on the disk.

L4 ANSWER 42 OF 45 CA COPYRIGHT 1996 ACS

101:219727 Organic functional coatings. (Canon K. K., Japan). Jpn.

Kokai Tokkyo Koho JP 58220143 A2 831221 Showa, 17 pp. (Japanese).

CODEN: JKXXAF. APPLICATION: JP 82-103604 820616.

GI For diagram(s), see printed CA Issue.

AB The coatings contain compd. I ( $X = \text{bond}$ , CO;  $Z, Z_1 = S, O, Se$ ;  $Z_2 = \text{group of atoms required to complete pyrylium, thiapyrylium, selenapyrylium, benzopyrylium, benzothiapyrylium, benzoselenapyrylium, naphthopyrylium, naphthothiapyrylium, or naphthoselenapyrylium ring}$ ;  $Z_3 = \text{group of atoms required to complete pyran, thiopyran, selenapyran, benzopyran, benzothiapyran, benzoselenapyran, naphthopyran, naphthothiapyran and naphthoselenapyran ring}$ ;  $R-R_3 = H, \text{alkyl, alkoxy, aryl, styryl, 4-phenyl-1,3-butadienyl}$ ;  $RR_1$  and  $R_2R_3$  combinations may complete benzene ring;  $m, n = 0, 1$ ). The functional coatings are esp. useful as electrophotog. photoconductors for laser printers, semiconductor laser recording materials, or IR absorbing filters. Thus, an Al support was coated with a compn. contg. II and S-Lec BM-2 (a butyral resin), and coated with a compn. contg. 4-diethylaminobenzaldehydo-N-phenyl-N-(.alpha.-naphthyl)hydrazone and a polysulfone resin (P-1700) to give an electrophotog. plate which showed good sensitivity to GaAlAs semiconductor laser radiation.

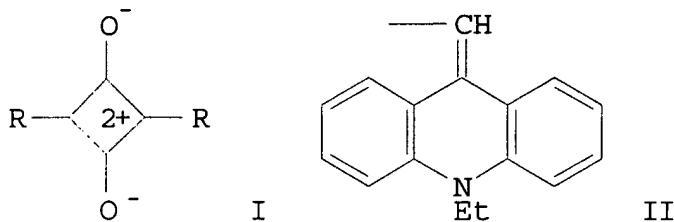
L4 ANSWER 43 OF 45 CA COPYRIGHT 1996 ACS

101:15116 Optical data recording material. (Ricoh Co., Ltd., Japan).

Jpn. Kokai Tokkyo Koho JP 58112792 A2 830705 Showa, 4 pp.

(Japanese). CODEN: JKXXAF. APPLICATION: JP 81-209931 811228.

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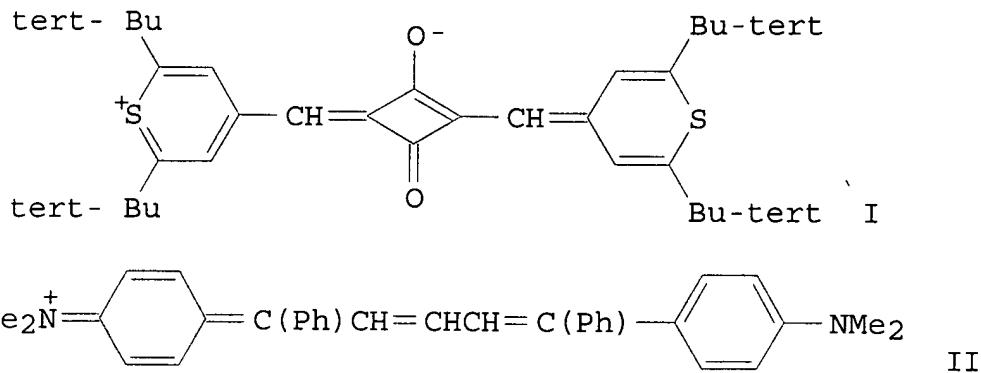


AB An optical data recording material has an org. layer whose main constituents are a squarylium dye of the general formula I (R = chromogenic group) and a binder and is recorded by using a high-energy laser beam of relatively long wavelength. Thus, an acrylic support was spin-coated with a mixt. of I (R = II) and poly(vinyl butyral), dried, and data recorded thereon using a 850 nm laser beam (4 mW) to give a recording with a S/N ratio of 40 dB at 0.5 MHz.

L4 ANSWER 44 OF 45 CA COPYRIGHT 1996 ACS

100:129783 Single-wavelength optical recording in pure, solvent-coated infrared dye layers. Gravesteijn, D. J.; Steenbergen, C.; Van der Veen, J. (Philips Res. Lab., Eindhoven, 5600 JA, Neth.). Proc. SPIE-Int. Soc. Opt. Eng., 420(Opt. Storage Media), 327-31 (English) 1983. CODEN: PSISDG. ISSN: 0277-786X.

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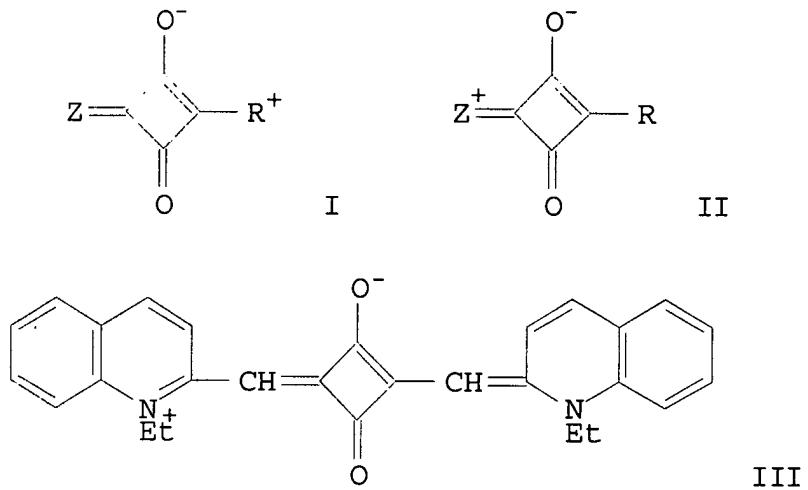


AB Optical recording was studied on disks comprising a film dye layer using either squarylium dye I or pentamethine dye II deposited resp. on a PMMA support with a continuous pregrooved structure and a glass support with a photopolymer pregrooved structure. Write expts. were carried out on a Kr ion laser ( $\lambda = 799$  nm) based optical recorder, the irradn. was support incident, and the pulse duration was 20-50 ns. Formation of regularly shaped pits was obsd., their width and depth increasing with increase of pulse energy. The information was read out at the recording wavelength as reflection changes relative to the dye layer reflection.

L4 ANSWER 45 OF 45 CA COPYRIGHT 1996 ACS

95:178630 Laser recording materials. (Nippon Telegraph and Telephone Public Corp., Japan). Jpn. Kokai Tokkyo Koho JP 56046221 810427 Showa, 5 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 79-120138 790920.

GI



AB   Org. compns. contg. I or II (R, Z = color-forming group) are coated on appropriate supports to give optical image recording materials. Thus, III was vacuum deposited on a Pyrex support to give a laser recording plate which exhibited excellent He-Ne laser sensitivity.

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CYC 1  
PI US 5453345 A 950926 (9544)\* 26 pp <--  
ADT US 5453345 A CIP of US 92-965161 921023, US 93-141852 931022  
FDT US 5453345 A CIP of US 5286612  
PRAI US 93-141852 931022; US 92-965161 921023  
AB US 5453345 A UPAB: 951109  
An imaging medium contains (i) a super-acid precursor, (ii) a dye which absorbs actinic radiation of a first wavelength, and (iii) a sec. acid generator which thermally decomposes to form a sec. acid, the decomposition being catalysed by the super-acid.

The super-acid precursor is decomposed to the super-acid by actinic radiation of a second wavelength which is shorter than the first. The precursor can only be decomposed by radiation of the first wavelength when the dye is present, the prod. of decomposition being capable of forming a protonated prod. derived from the dye.

Also claimed is an imaging medium contg. a super-acid precursor

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and an IR dye which absorbs in the range 700-12000 nm. The precursor is decomposed to a super-acid by UV in the range 180-400 nm, but is not decomposed by radiation of wavelength 700-1200 nm in the absence of the dye. This imaging medium opt. contains one or more of the following (a) a sec. acid generator as defined above or (b) a monomer or oligomer which polymerises, (c) a polymer which depolymerises, (d) a polymer whose solubility in a solvent changes, or (e) a polymer whose adhesion to a material changes, in the absence of unbuffered super-acid.

USE - Image formation involves an initial imagewise exposure at the first wavelength to form super-acid buffered by the dye, and a second overall exposure at the second wavelength to form unbuffered acid which can generate an image, i.e. by catalysing decomposition of the sec. acid generator, the sec. acid reacting with an acid-sensitive material to form a colour.

ADVANTAGE - The initial image-forming exposure is with a wavelength to which the super-acid is not sensitive, esp. IR, enabling a high resolution laser exposure to be used.

Dwg.0/6

PI US 5453345 A 950926 (9544)\* 26 pp G03C001-492 <--  
ADT US 5453345 A CIP of US 92-965161 921023, US 93-141852 931022  
FDT US 5453345 A CIP of US 5286612  
PRAI US 93-141852 931022; US 92-965161 921023

L5 ANSWER 2 OF 35 WPIDS COPYRIGHT 1996 DERWENT INFORMATION LTD  
AN 95-138914 [18] WPIDS  
CR 93-235113 [29]  
DNN N95-109200 DNC C95-064186  
TI Acid generating compsns. for photosensitive materials - contain di aryl iodonium salt and IR absorbing squarylium dye and give high quantum yield of acid on exposure to semiconductor diode lasers.

DC A89 E14 E23 G06 P83  
IN TAKIFF, L C; TELFER, S J; WATERMAN, K C  
PA (INTP) POLAROID CORP

CYC 1

PI US 5401607 A 950328 (9518)\* 26 pp <--  
ADT US 5401607 A CIP of US 91-686502 910417, US 93-84759 930629  
FDT US 5401607 A CIP of US 5227277  
PRAI US 91-686502 910417; US 93-84759 930629  
AB US 5401607 A UPAB: 950518

An acid-generating compsn. contains (1) a diaryl iodonium salt, and (2) a squarylium dye which can absorb IR radiation in the range 700-120 nm. The dye has a squarylium ring in which the 1- and 3-positions are connected via a single sp<sub>2</sub> carbon atom to a moiety (I) which is a pyrylium, thiopyrylium, benzpyrylium or benzthiopyrylium gp. At least one of the sp<sub>2</sub> C atoms has an attached H atom. The 2-position of the squarylium has an O-, amino, substd. amino or sulphonamido gp.

Also claimed is a process of generating an acid involving irradiating the above compsn. with IR radiation of 700-1200 nm. The dye absorbs the radiation and acid is generated in the compsn.

USE - Acid generating compsn. sensitive to IR for use is photosensitive compsns. for exposure by semiconductor diode lasers.

ADVANTAGE - The squarylium dye increases the quantum yield of acid generated when using a diaryl iodonium salt as acid precursor.  
Dwg. 0/7

PI US 5401607 A 950328 (9518)\* 26 pp G03C003-00 <--  
ADT US 5401607 A CIP of US 91-686502 910417, US 93-84759 930629  
FDT US 5401607 A CIP of US 5227277  
PRAI US 91-686502 910417; US 93-84759 930629

L5 ANSWER 3 OF 35 WPIDS COPYRIGHT 1996 DERWENT INFORMATION LTD  
AN 94-358062 [44] WPIDS  
DNN N94-280576 DNC C94-163382  
TI Laser induced melt transfer process with melt viscosity modifier and post transfer curing - and applications in prepn. of lithographic plates or in colour imaging.  
DC A89 G05 P74 P75 T04  
IN REARDON, J E; SERINO, A J  
PA (DUPO) DU PONT DE NEMOURS & CO E I  
CYC 18  
PI WO 9425282 A1 941110 (9444)\* EN 39 pp <--  
RW: AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE  
W: JP  
US 5395729 A 950307 (9515) 11 pp  
EP 696245 A1 960214 (9611) EN  
R: DE FR GB  
ADT WO 9425282 A1 WO 94-US4299 940425; US 5395729 A US 93-55496 930430;  
EP 696245 A1 EP 94-914836 940425, WO 94-US4299 940425  
FDT EP 696245 A1 Based on WO 9425282  
08/479,077

PRAI US 93-55496 930430

AB WO 9425282 A UPAB: 941223

A laser-induced melt transfer process comprises: (a) imagewise exposing to laser radiation an assembly comprising a donor element (1) and a receiver element (2); (b) separating (1) from (2); and (c) exposing (2) to a post transfer treatment (curing). (1) comprises: (i) at least one imageable component; (ii) at least one resin able to undergo a curing reaction; (iii) at least one melt viscosity modifier; such that (i) and (ii) or (ii) and (iii) can be the same or different; (i), (ii) and (iii) are not all the same. Further (i), (ii) and (iii) can be in the same or different layers. A substantial portion of (i), (ii) and (iii) is transferred to (2). The novel features are (c) and (iii). Also claimed are methods in which the above process is employed for making lithographic plates, (i) being at least one oleophilic resin, or for making a colour image (i) being at least one colourant.

USE - The process is useful for lithography and for making colour proofs.

ADVANTAGE - The process and methods reduce or prevent 'back transfer' - the transfer of imaging material from a receiver element to a second donor when a second colour is being printed. Enhanced transfer of (i) is achieved.

Dwg.1A/2

PI WO 9425282 A1 941110 (9444)\* EN 39 pp B41M005-38 <--

RW: AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE

W: JP

US 5395729 A 950307 (9515) 11 pp G03F009-00

EP 696245 A1 960214 (9611) EN B41M005-38

R: DE FR GB

ADT WO 9425282 A1 WO 94-US4299 940425; US 5395729 A US 93-55496 930430;

EP 696245 A1 EP 94-914836 940425, WO 94-US4299 940425

FDT EP 696245 A1 Based on WO 9425282

PRAI US 93-55496 930430

L5 ANSWER 4 OF 35 WPIDS COPYRIGHT 1996 DERWENT INFORMATION LTD

AN 94-324609 [40] WPIDS

CR 93-182357 [22]; 96-128580 [13]

DNC C94-147804

TI Squarylium dyes contg. amino substit. used as near IR absorbers - providing fine control of absorption wavelength and incorporation of  
08/479,077

functional gps. without changing the chromophore.

DC E13 E23 G02 G05 G08 L03  
IN ALLEN, R M; CHU, P K; LEE, J W; MCGOWAN, D A; MISCHKE, M R; RAMOS, S M; TELFER, S J  
PA (INTP) POLAROID CORP  
CYC 1  
PI US 5354873 A 941011 (9440)\* EN 37 pp <--  
ADT US 5354873 A CIP of US 91-795034 911120, US 92-979250 921120  
FDT US 5354873 A CIP of US 5227498  
PRAI US 92-979250 921120; US 91-795034 911120  
AB US 5354873 A UPAB: 960405

Squaric acid derivs. of formula (I) are new. In (I), Q = pyrylium thiopyrylium, selenopyrylium, benzpyrylium, benzthio pyrylium or benzselenopyrylium nucleus; R1 = H or 1-6C alkyl; R3, R4 = H or 1-6C alkyl or acyl, provided one of R3, R4 may be amino or mono- or dialkyl-amino contg. 1-6C alkyl substs. or R3, R4 together form a hydrocarbon gp. such that R3 and R4 together with the intervening N atom form a nitrogenous heterocyclic ring contg. no other hetero atom.

USE - These cpds. are useful as near-infra red absorbers. Also used in printing inks, as electrophotographic charge transfer agents, and as laser dyes.

ADVANTAGE - Modification of the amino gp. enables minor changes in absorption wavelength and allows functional gps. to be incorporated without changes in the chromophoric gps.

Dwg. 0/6

PI US 5354873 A 941011 (9440)\* EN 37 pp C07D311-58 <--  
ADT US 5354873 A CIP of US 91-795034 911120, US 92-979250 921120  
FDT US 5354873 A CIP of US 5227498  
PRAI US 92-979250 921120; US 91-795034 911120

L5 ANSWER 5 OF 35 WPIDS COPYRIGHT 1996 DERWENT INFORMATION LTD  
AN 94-057246 [07] WPIDS  
DNN N94-045048 DNC C94-025744  
TI Photo thermal-tackifiable coating useful in peel apart tonable prods - comprises blend of tacky and non-tacky polymers becoming immiscible on near IR imagewise exposure.  
DC A14 A89 E23 G06 P83 P84  
IN SIMMONS, H E  
PA (DUPO) DU PONT DE NEMOURS & CO E I  
08/479,077

CYC 1  
PI US 5286604 A 940215 (9407)\* 6 pp <--  
ADT US 5286604 A US 92-981346 921125  
PRAI US 92-981346 921125  
AB US 5286604 A UPAB: 940329

Coating compsn. comprises optionally clear blend of (a) a (co)polymer which is tacky on account of having a Tg below room temp; (b) a dye generating locally intense heat on exposure to near IR radiation; and (c) a (co)polymer miscible with (a) and of Tg sufficiently high for the blend to be non-tacky at room temp., this (co)polymer having functional gps. which react in the presence of imagewise generated heat to give a (co)polymer which is immiscible with tacky (co)polymer (a).

Polymers (a) and (c) both pref. are Mn of below 30,000. (a) is pref. poly(2-phenylethyl acrylate) or poly(3-Ph-1-propyl acrylate). Thermolabile polymer (c) is an acetal ester, t.Bu ester, t-butoxycarbonyloxy deriv. of a phenol or an acetal ether of a phenol and the functional gps. react to form carboxylic acid or phenolic gps. Dye (b) is pref. thiopyrylium, 4-((3-((2,6-bis(1,1-dimethylethyl)-4H-thiopyran-4-ylidene)-methyl)-2-OH-4-oxo-2-cyclo-butene-1-ylidene)methyl)2,6-bis-(1,1-dimethylethyl)-hydroxide, inner salt (SQS), prep'd. as per US4508811.

USE - Photothermal tackifiable coating compsn. is imagewise tonable and can be used in peel apart tonable elements. Overlay and integral (surprint) proofs can be prep'd. from the compsns., the compsns. having good imaging characteristics on diode laser-modified Crosfield scanners.

Dwg. 0/0

PI US 5286604 A 940215 (9407)\* 6 pp G03C001-73 <--  
ADT US 5286604 A US 92-981346 921125  
PRAI US 92-981346 921125

L5 ANSWER 6 OF 35 WPIDS COPYRIGHT 1996 DERWENT INFORMATION LTD  
AN 94-025404 [03] WPIDS  
CR 95-138919 [18]  
DNN N94-019821 DNC C94-011732  
TI Thermochemical squaric acid derivs. prodn. for e.g. thermal imaging process - by thermally decomposing 3,4-di substd.-cyclo but-3-ene-1,2-di one to replace oxo gps. with hydroxyl gps., etc..  
DC E13 G06 P83

IN BOGGS, R A; GRASSHOFF, J M; MISCHKE, M R; PUTTICK, A J; TELFER, S J;  
WALLER, D P; WATERMAN, K C; LEE, J M; MARSHALL, J L; MISCHKE, M A

PA (INTP) POLAROID CORP

CYC 19

PI US 5278031 A 940111 (9403)\* 19 pp <--  
WO 9409992 A1 940511 (9420) EN 80 pp

RW: AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE

W: CA JP

EP 665789 A1 950809 (9536) EN  
R: DE FR GB IT NL SE

ADT US 5278031 A US 92-965172 921023; WO 9409992 A1 WO 93-US10093  
931022; EP 665789 A1 EP 93-924984 931022, WO 93-US10093 931022

FDT EP 665789 A1 Based on WO 9409992

PRAI US 92-965172 921023

AB US 5278031 A UPAB: 950524

Process comprises a 3,4-disubstd.-cyclobut-3-ene- 1,2-dione in which at least one of the 3- and 4-substs. is an O atom bonded to the squaric acid ring and an alkyl or alkylene gp., a partially hydrogenated aryl or arylene gp. or an aralkyl gp. bonded to the O atom, being thermally decomposed for sufficient time at a sufficient temp. so as to replace the or each original oxy gp. of the deriv. with a hydroxyl gp. thereby producing squaric acid or an acidic squaric acid deriv. having one hydroxyl gp..

The dione cpd. is pref. of formulae (I), (II) or (III), or the squaric acid deriv. pref. comprises at least one unit of formula (IV). In formulae, R1 and R3 are alkyl, partially hydrogenated aromatic, or aralkyl, pref. opt. phenyl-substd. 1-20C alkyl with the C directly bonded to the O having not more than one H attached thereto; R2 is H, alkyl, cycloalkyl, aralkyl, aryl, amino, alkylamino, dialkylamino, alkylthio, alkylseleno, dialkyl phosphino, dialkylphosphoxy or trialkylsilyl, pref. 1-20C alkyl or phenyl; R1, R2 or R3 may be attached to a polymer; R4 is alkylene or partially hydrogenated arylene, pref. 1-12C alkylene in which each of the C atoms directly bonded to the O atoms has not more than one H attached thereof; n is 0 or 1 and R5 is alkylene or partially hydrogenated arylene; in (I), pref. R1 is benzyloxy and R2 is amino. In (II), pref. R1 and R3 are tertiary butyl, alpha-methylbenzyl or cyclohexyl.

USE/ADVANTAGE - The invention provides a process for thermochemical generation of an acid, and hence for thermal imaging,

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to provide an image which can be fixed to render it stable to heat.

Dwg.3/3

Dwg.3/3

PI US 5278031 A 940111 (9403)\* 19 pp G03C005-16 <--  
WO 9409992 A1 940511 (9420) EN 80 pp B41M005-30  
RW: AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE  
W: CA JP  
EP 665789 A1 950809 (9536) EN B41M005-30  
R: DE FR GB IT NL SE  
ADT US 5278031 A US 92-965172 921023; WO 9409992 A1 WO 93-US10093  
931022; EP 665789 A1 EP 93-924984 931022, WO 93-US10093 931022  
FDT EP 665789 A1 Based on WO 9409992  
PRAI US 92-965172 921023

L5 ANSWER 7 OF 35 WPIDS COPYRIGHT 1996 DERWENT INFORMATION LTD  
AN 93-350855 [44] WPIDS  
DNN N93-270699 DNC C93-155715  
TI IR absorber for laser induced thermal dye transfer - comprises telluro- or seleno-squarylium dye, used in donor element with image dye.

DC E23 G06 P75 T04

IN BURBERRY, M S; DETTY, M R; TUTT, L W

PA (EAST) EASTMAN KODAK CO

CYC 7

PI US 5256620 A 931026 (9344)\* 8 pp <--  
EP 603567 A1 940629 (9425) EN 13 pp  
R: BE DE FR GB NL  
JP 06210972 A 940802 (9435) 10 pp

ADT US 5256620 A US 92-992233 921217; EP 603567 A1 EP 93-118908 931124;  
JP 06210972 A JP 93-311562 931213

PRAI US 92-992233 921217

AB US 5256620 A UPAB: 931213

Dye donor element (A) for laser-induced thermal dye transfer comprises a support carrying a dye layer comprising an image dye in a binder, associated with an infrared absorbing material consisting of a telluro- or seleno-squarylium dye of formula (I).

In (I) R1-R4 is H or opt. substd. alkyl, aryl or heteroaryl; R5,R6 are each as R1-R4 or halogen, CN, alkoxy, aryloxy, acyloxy, aryloxycarbonyl, alkoxycarbonyl, sulphonyl, carbamoyl, acyl, acylamido, alkylamino or arylamino; X is Se or Te; Y is O,S,

Se, Te, TeCl<sub>2</sub> or TeBr<sub>2</sub>; provided that when R<sub>1</sub>-R<sub>4</sub> = t-Bu and X=Y=Se, then R<sub>5</sub> and R<sub>6</sub> are not both H; and when X=Se, Y=O and R<sub>1</sub>-R<sub>4</sub> = t-Bu, then R<sub>5</sub> and R<sub>6</sub> are not both H. (I) is pref. in the dye layer. Also claimed are an image-forming process consisting of contacting (A) with a dye-receiving element (B) comprising a support carrying a polymeric dye image receiving layer, image-wise heating (A) with a laser and transferring the dye image to (B); and a dye transfer assembly consisting of (A) supported with (B), with the dye layer in contact with the image-receiving layer.

ADVANTAGE - (I) have a narrow absorption band at selected wavelength and have different solvent and film copatibilities from prior art IR-absorbing materials.

In an example, magenta dye donor uses prep'd. by coating an unsubbed 100 microns thick PET support with a layer comprising an isothiazolyl-azo-phenyldiamine deriv. magenta dye (0.44 g/m<sup>2</sup>) and (I;X,Y=Te; R<sub>1</sub>-R<sub>4</sub>+t-Bi; R<sub>5</sub>,R<sub>6</sub>=H) (0.16 g/m<sup>2</sup>) in the cellulose acetate propionate binder (2.5% acetyl, 4.5% propionyl; 0.31 g/m<sup>2</sup>) coated from CH<sub>2</sub>Cl<sub>2</sub>.

Dwg.0/0

PI	US 5256620	A 931026 (9344)*	8 pp	B41M005-035	<--
	EP 603567	A1 940629 (9425)	EN 13 pp	B41M005-38	
	R: BE DE FR GB NL				
	JP 06210972	A 940802 (9435)	10 pp	B41M005-38	
ADT	US 5256620	A US 92-992233 921217;	EP 603567 A1 EP 93-118908 931124;		
	JP 06210972	A JP 93-311562 931213			
PRAI	US 92-992233	921217			

L5 ANSWER 8 OF 35 WPIDS COPYRIGHT 1996 DERWENT INFORMATION LTD

AN 93-235113 [29] WPIDS

CR 95-138914 [18]

DNN N93-180482 DNC C93-104807

TI Imaging process and imaging medium - utilise polymeric, depolymerisable layer, porous or particulate imaging material, support sheets, and release layer.

DC A89 G06 P84

IN WATERMAN, K C

PA (INTP) POLAROID CORP

CYC 1

PI US 5227277 A 930713 (9329)\* 19 pp <--

ADT US 5227277 A US 91-686502 910417

08/479,077

PRAI US 91-686502 - 910417

AB US 5227277 A UPAB: 950524

Process comprises: (a) providing a polymeric, depolymerisable layer of a depolymerisable polymer which at least partially depolymerises in the presence of acid, the depolymerisable layer further comprising an IR dye capable of absorbing infra-red radiation of 800-1200nm and an acid generator capable of generating acid, the depolymerisable layer is no-tacky prior to depolymerisation but becomes tacky upon at least partial depolymerisation of the polymer; (b) providing a layer of an imaging material on the depolymerisable layer, the layer of the imaging material having a cohesive strength greater than the adhesive strength between the imaging material and the depolymerisable layer prior to depolymerisation of the polymer, thereby providing an imaging medium; (c) imagewise exposing portions of the imaging medium in infra-red actinic radiation of 800-1200nm, causing absorption of the IR radiation by the IR dye, generation of acid by the acid generator, and at least partial depolymerisation of the polymer in the exposed areas of the depolymerisable layer and rendering these exposed areas tacky and firmly attaching exposed portions of the imaging material to the depolymerisable layer; and (d) removing from the depolymerisable layer the portions of the imaging material in the unexposed area, but leaving the portions of the imaging material in the exposed areas adhered to the depolymerisable layer, and so forming an image.

USE/ADVANTAGE - Image formation is formed by the change in adhesivity of a polymer upon depolymerisation.

Dwg.2/4

Dwg.2/4

PI US 5227277 A 930713 (9329)\* 19 pp G03F007-004 <--

ADT US 5227277 A US 91-686502 910417

PRAI US 91-686502 910417

L5 ANSWER 9 OF 35 WPIDS COPYRIGHT 1996 DERWENT INFORMATION LTD

AN 93-232049 [29] WPIDS

DNN N93-178542 DNC C93-103145

TI Thermal transfer recording sheet for mfg. high quality picture images - obtd. by forming layer contg. thermal transfer pigment and squarylium cpd. as IR-ray absorbing substance, on base film.

DC A89 E23 G05 P75

PA (MITU) MITSUBISHI KASEI CORP

CYC 1

PI JP 05155143 A 930622 (9329)\* 8 pp &lt;--

ADT JP 05155143 A JP 91-324860 911209

PRAI JP 91-324860 911209

AB JP05155143 A UPAB: 931119

Sheet is obtd. by forming a layer contg. a thermal transfer pigment and a squarylium cpd. of formula (I) as an IR ray-absorbing substance on a base film. In (I) R1 = H, an alkyl gp., an alkoxy gp. or halogen, R2 = an alkyl gp. or a phenyl gp. opt. substn. with an alkyl gp., an alkoxy gp. or halogen, n = 0, 1 or 2.

The lamination of the colourant layer on the base film pref. comprises applying ink prep'd. by dissolving the pigment, the IR ray-absorbing substance and a water-soluble resin or an organic solvent-soluble resin as a binder in water or an organic solvent to the base film, pref. a PET film.

USE/ADVANTAGE - The thermal transfer recording sheet can make a high quality picture image-recorded matter by transferring its colourant layer to a picture image-receiving sheet thermally with the IR irradiation.

Dwg. 0/0

PI JP 05155143 A 930622 (9329)\* 8 pp B41M005-30 &lt;--

ADT JP 05155143 A JP 91-324860 911209

PRAI JP 91-324860 911209

L5 ANSWER 10 OF 35 WPIDS COPYRIGHT 1996 DERWENT INFORMATION LTD

AN 93-182357 [22] WPIDS

CR 94-324609 [40]; 96-128580 [13]

DNN N93-140235 DNC C93-080749

TI New squarylium dyes and intermediates - for use as IR absorbers in thermal imaging.

DC E24 G05 P75 T03 T04 W04

IN LEE, J W; MCGOWAN, D A; MISCHKE, M R; RAMOS, S M; TELFER, S J; ALLEN, R M; CHU, P K

PA (INTP) POLAROID CORP

CYC 19

PI WO 9309956 A1 930527 (9322)\* &lt;--

RW: AT BE CH DE DK ES FR GB GR IE IT LU MC NL SE

W: CA JP KR

US 5227498 A 930713 (9329) 24 pp

US 5227499 A 930713 (9329) 22 pp

08/479,077

EP 613422 A1 940907 (9434) EN  
R: DE FR GB IT NL SE  
JP 07501497 W 950216 (9516) 23 pp

ADT WO 9309956 A1 WO 92-US9992 921120; US 5227498 A US 91-795034 911120;  
US 5227499 A US 91-795341 911120; EP 613422 A1 WO 92-US9992 921120,  
EP 93-900560 921120; JP 07501497 W WO 92-US9992 921120, JP 93-509525  
921120

FDT EP 613422 A1 Based on WO 9309956; JP 07501497 W Based on WO 9309956

PRAI US 91-795341 911120; US 91-795034 911120

AB WO 9309956 A UPAB: 960405

Novel squarylium cpds. of formula (I) are claimed, as are also the novel squaric acid deriv. intermediate of formula (II) and the novel cpd. of formula (III).  
Also claimed are methods for prepn. of (I) from (II), methods for prepn. of (II) and prepn. of 1,3-di-substd. -2-amino or substd. amino squarylium dyes (total of 6 methods claimed).

USE/ADVANTAGE - (I) are used as near IR absorbers in thermal imaging media. They have high extinction coeffs and have even greater solubility in certain media than the dyes of WO92009661 or EP application 921075774.3 and can be 'finely-toned' by shifting the IR absorption peaks. Chemically closely related (I) sharing synthetic intermediates can be provided so as to provide sets of 3 dyes for use in imaging media with 3 colour-forming layers.

Dwg.7  
Dwg.7

PI WO 9309956 A1 930527 (9322)\* B41M005-40 <--  
RW: AT BE CH DE DK ES FR GB GR IE IT LU MC NL SE  
W: CA JP KR

US 5227498 A 930713 (9329) 24 pp C07D311-58  
US 5227499 A 930713 (9329) 22 pp C07D311-58  
EP 613422 A1 940907 (9434) EN  
R: DE FR GB IT NL SE  
JP 07501497 W 950216 (9516) 23 pp B41M005-26

ADT WO 9309956 A1 WO 92-US9992 921120; US 5227498 A US 91-795034 911120;  
US 5227499 A US 91-795341 911120; EP 613422 A1 WO 92-US9992 921120,  
EP 93-900560 921120; JP 07501497 W WO 92-US9992 921120, JP 93-509525  
921120

FDT EP 613422 A1 Based on WO 9309956; JP 07501497 W Based on WO 9309956

PRAI US 91-795341 911120; US 91-795034 911120

L5 ANSWER 11 OF 35 WPIDS COPYRIGHT 1996 DERWENT INFORMATION LTD  
AN 93-093840 [11] WPIDS  
DNN N93-071842 DNC C93-041492  
TI Peel apart element for laser-induced thermal imaging - comprises dimensionally stable support, active layer of IR absorbing material and polymeric binder, adhesive layer and cover sheet.  
DC A89 G06 L03 P75 P84 T04 U11 V04  
IN BECKERBAUER, R; COVELSKIE, R A; KELLOGG, R E; MA, S; MONROE, B M;  
SAVINI, S; TAYLOR, H W; WEED, G C  
PA (DUPO) DU PONT DE NEMOURS & CO E I  
CYC 18  
PI WO 9303928 A1 930304 (9311)\* EN 63 pp <--  
RW: AT BE CH DE DK ES FR GB GR IE IT LU MC NL SE  
W: AU CA JP  
AU 9224867 A 930316 (9328)  
EP 599989 A1 940608 (9422) EN  
R: DE FR GB  
JP 06509759 W 941102 (9503) 25 pp  
ADT WO 9303928 A1 WO 92-US6833 920814; AU 9224867 A AU 92-24867 920814;  
EP 599989 A1 EP 92-918506 920814, WO 92-US6833 920814; JP 06509759 W  
WO 92-US6833 920814, JP 93-504458 920814  
FDT AU 9224867 A Based on WO 9303928; EP 599989 A1 Based on WO 9303928;  
JP 06509759 W Based on WO 9303928  
PRAI US 91-745924 910816; US 92-885620 920519; US 92-925621 920806  
AB WO 9303928 A UPAB: 931122  
Element comprises 1) a dimensionally stable support; 2) an active layer, comprising a) an infra-red absorbing material; and b) a polymeric binder; and 3) an adhesive layer; and 4) a coversheet. (a) is present in an amt. sufficient to absorb sufficient infra-red radiation to produce the desired change in the adhesion of the active layer.

The adhesive relationship is such that, on peeling apart, regions of the active layer exposed with infra-red radiation adhere to the support while unexposed regions of the active layer adhere to the adhesive layer and the coversheet and are removed with the adhesive layer and the coversheet.

Processes for forming coloured and multicoloured images using the above elements are also claimed.

USE/ADVANTAGE - The peel apart element provided is partic. useful in the graphic arts field, such as in imagesetting, colour  
08/479,077

proofing where the proofs are prep'd. by overlaying four process colour transparency films in registration. It is also useful in the prodn. of photomasks for conventional analogue imaging applications such as photopolymerisable compsns. used in colour proofing and colour plate. The element can be integrated into a conventional analogue imaging system by laminating the element on the photopolymerisable compsn.. Other uses of the high resolution photomask include preparation of printed circuit boards, resists and solder masal

Dwg.0/0

PI WO 9303928 A1 930304 (9311)\* EN 63 pp B41M005-40 <--  
RW: AT BE CH DE DK ES FR GB GR IE IT LU MC NL SE  
W: AU CA JP  
AU 9224867 A 930316 (9328) B41M005-40  
EP 599989 A1 940608 (9422) EN B41M005-40  
R: DE FR GB  
JP 06509759 W 941102 (9503) 25 pp B41M005-26  
ADT WO 9303928 A1 WO 92-US6833 920814; AU 9224867 A AU 92-24867 920814;  
EP 599989 A1 EP 92-918506 920814, WO 92-US6833 920814; JP 06509759 W  
WO 92-US6833 920814, JP 93-504458 920814  
FDT AU 9224867 A Based on WO 9303928; EP 599989 A1 Based on WO 9303928;  
JP 06509759 W Based on WO 9303928  
PRAI US 91-745924 910816; US 92-885620 920519; US 92-925621 920806

L5 ANSWER 12 OF 35 WPIDS COPYRIGHT 1996 DERWENT INFORMATION LTD

AN 92-229872 [28] WPIDS

DNN N92-175010 DNC C92-103346

TI Sublimation or molten type thermal transcribing image receiving material - comprises image receiving substrate, photo-thermal conversion layer contg. IR beam absorbing dye and thermal transcribing image receiving layer.

DC A89 E24 G05 P75

PA (KONS) KONICA CORP

CYC 1

PI JP 04153086 A 920526 (9228)\* 10 pp <--

ADT JP 04153086 A JP 90-279579 901017

PRAI JP 90-279579 901017

AB JP04153086 A UPAB: 931006

Material comprises an image receiving substrate, a photothermal conversion layer contg. an IR beam absorbing dye (substantially no

08/479,077

absorption in visible region), and a thermal transcribing image-receiving layer.

Pref. IR beam absorption dye: is of formula (I) or (II) content of the dye is at least 3 wt% when contained in photothermal conversion layer; and 2 wt% when in the thermal transcribing layer. Substrate is synthetic paper, polyester, polycarbonate, polystyrene, or cellulose triacetate.

ADVANTAGE - Prod. gives a highly sensitive recording without causing colour turbidity after thermal transcription.

0/0

PI JP 04153086 A 920526 (9228)\* 10 pp B41M005-38 <--  
ADT JP 04153086 A JP 90-279579 901017  
PRAI JP 90-279579 901017

L5 ANSWER 13 OF 35 WPIDS COPYRIGHT 1996 DERWENT INFORMATION LTD  
AN 92-217049 [26] WPIDS  
CR 95-154639 [20]

DNN N92-164744 DNC C92-098309

TI Squarylium dye used as visible- and near-IR absorber - comprises inner salt of squarylium cpd..

DC E23 G08 P75 S06 T03 W04

IN PUTTICK, A J; RAMOS, S M; SHORT, R P; STROUD, S G; TELFER, S J;  
ZURAW, M J

PA (INTP) POLAROID CORP

CYC 15

PI WO 9209661 A1 920611 (9226)\* EN 93 pp <--  
RW: AT BE CH DE DK ES FR GB GR IT LU NL SE  
W: CA JP

EP 511381 A1 921104 (9245) EN 93 pp

R: DE FR GB IT NL SE

JP 05505641 W 930819 (9338) 31 pp

EP 511381 B1 950726 (9534) EN 52 pp

R: DE FR GB IT NL SE

DE 69111595 E 950831 (9540)

ADT WO 9209661 A1 WO 91-US8695 911120; EP 511381 A1 WO 91-US8695 911120,  
EP 92-903589 911120; JP 05505641 W WO 91-US8695 911120, JP 92-503661  
911120; EP 511381 B1 WO 91-US8695 911120, EP 92-903589 911120; DE  
69111595 E DE 91-611595 911120, WO 91-US8695 911120, EP 92-903589  
911120

FDT EP 511381 A1 Based on WO 9209661; JP 05505641 W Based on WO 9209661;  
08/479,077

EP 511381 B1 Based on WO 9209661; DE 69111595 E Based on EP 511381,  
Based on WO 9209661

PRAI US 90-616639 901121

AB WO 9209661 A UPAB: 951004

Dye comprises an inner salt of a squarylium cpd. of formula Q1=Z-Q2 where Q1 is 4-(benz(b)-4H-pyrylium) methylidene, 4-(benz(b)-4H-thiopyrylium) methylidene or 4-(benz(b)-4H-selenopyrylium) methylidene, Z is a 1,3-(2-hydroxy-4-oxo-2-cyclobutylidene) hydroxide or 1,3-(2-hydroxy-4,5-dioxo-2-cyclopentylidene) hydroxide ring; and Q2 is 4-(benz(b)-4H-pyran-4-ylidene) methyl, 4-(benz(b)-4H-thiopyran-4-ylidene) methyl or 4-(benz(b)-4H-selenopyran-4-ylidene) methyl. One or both of Q1 and Q2 carries at its 2-position a substit in which a non-aromatic C is bonded directly to the benzpyrylium, benzthiopyrylium or benzselenopyrylium nucleus, subject to the proviso that if the 2-substit. contains an aromatic nucleus, this aromatic nucleus is not conjugated with the benzpyrylium, benzthiopyrylium or benzselenopyrylium nucleus to which it is attached.

Also claimed are prepn. of the dye, a process for generating heat in a medium comprising the dye, a recording element contg. the dye, and a chromone.

USE/ADVANTAGE - Used as visible and near IR absorbers, having high extinction coeffts. and improved solubility in polymeric media.

5/5

Dwg. 5/5

PI WO 9209661 A1 920611 (9226)\* EN 93 pp C09B057-00 <--

RW: AT BE CH DE DK ES FR GB GR IT LU NL SE

W: CA JP

EP 511381 A1 921104 (9245) EN 93 pp

R: DE FR GB IT NL SE

JP 05505641 W 930819 (9338) 31 pp C09B057-00

EP 511381 B1 950726 (9534) EN 52 pp C09B057-00

R: DE FR GB IT NL SE

DE 69111595 E 950831 (9540) C09B057-00

ADT WO 9209661 A1 WO 91-US8695 911120; EP 511381 A1 WO 91-US8695 911120, EP 92-903589 911120; JP 05505641 W WO 91-US8695 911120, JP 92-503661 911120; EP 511381 B1 WO 91-US8695 911120, EP 92-903589 911120; DE 69111595 E DE 91-611595 911120, WO 91-US8695 911120, EP 92-903589 911120

FDT EP 511381 A1 Based on WO 9209661; JP 05505641 W Based on WO 9209661;  
08/479,077

EP 511381 B1 Based on WO 9209661; DE 69111595 E Based on EP 511381,  
Based on WO 9209661

PRAI US 90-616639 901121

L5 ANSWER 14 OF 35 WPIDS COPYRIGHT 1996 DERWENT INFORMATION LTD  
AN 92-216896 [26] WPIDS  
DNN N92-164686 DNC C92-098195  
TI Stress-absorbing thermal imaging laminar medium - comprising pair of sheet members, layer(s) of image-forming substance and polymeric stress-absorbing layer.  
DC A89 G05 P75 P84  
IN KELLY, N F  
PA (INTP) POLAROID CORP  
CYC 18  
PI WO 9209443 A1 920611 (9226)\* EN 51 pp <--  
RW: AT BE CH DE DK ES FR GB GR IT LU NL SE  
W: AU CA JP KR  
AU 9190679 A 920625 (9239)  
EP 510174 A1 921028 (9244) EN 51 pp  
R: DE FR GB IT NL SE  
US 5200297 A 930406 (9316) 13 pp  
JP 05503899 W 930624 (9330) 10 pp  
AU 647227 B 940317 (9416)  
EP 510174 B1 941019 (9440) EN 20 pp  
R: DE FR GB IT NL SE  
DE 69104704 E 941124 (9501)  
ADT WO 9209443 A1 WO 91-US8604 911118; AU 9190679 A AU 91-90679 911118,  
WO 91-US8604 911118; EP 510174 A1 WO 91-US8604 911118, EP 92-900931  
911118; US 5200297 A US 90-616854 901121; JP 05503899 W WO 91-US8604  
911118, JP 92-501960 911118; AU 647227 B AU 91-90679 911118; EP  
510174 B1 WO 91-US8604 911118, EP 92-900931 911118; DE 69104704 E DE  
91-604704 911118, WO 91-US8604 911118, EP 92-900931 911118  
FDT AU 9190679 A Based on WO 9209443; EP 510174 A1 Based on WO 9209443;  
JP 05503899 W Based on WO 9209443; AU 647227 B Previous Publ. AU  
9190679, Based on WO 9209443; EP 510174 B1 Based on WO 9209443; DE  
69104704 E Based on EP 510174, Based on WO 9209443  
PRAI US 90-616854 901121  
AB WO 9209443 A UPAB: 931006  
laminar thermal imaging medium, actuatable in response to intense image-forming radiation for prodn. of an image, comprises a pair of

sheet members and layer(s) of an image-forming substance in between and in laminar relation to the members. The medium material has a tendency towards stress-induced adhesive failure at the interface having the weakest adhesivity, and the tendency is reduced by a polymeric stress-absorbing layer in close proximity in the interface.

Also claimed is laminar thermal imaging medium comprising: (i) a first sheet transparent to the image-forming radiation; (ii) a polymeric stress-absorbing layer; (iii) a layer of polymeric material heat-activatable upon subjection of the thermal imaging laminar medium to the image-forming radiation; (iv) a layer of porous or particulate image-forming substance having cohesivity in excess of its adhesivity for the polymeric heat-activatable layer, (iv) and laminated (in)directly to the image-forming substance.

USE/ADVANTAGE - Used for recording information and has improved resistance to stress-induced delamination. (Dwg.1,2/2  
1,2/2

PI	WO 9209443	A1	920611	(9226)*	EN	51 pp	B41M005-40	<--
	RW:	AT BE CH DE DK ES FR GB GR IT LU NL SE						
	W:	AU CA JP KR						
	AU 9190679	A	920625	(9239)			B41M005-40	
	EP 510174	A1	921028	(9244)	EN	51 pp	B41M005-40	
		R:	DE FR GB IT NL SE					
	US 5200297	A	930406	(9316)		13 pp	G03F007-34	
	JP 05503899	W	930624	(9330)		10 pp	B41M005-26	
	AU 647227	B	940317	(9416)			B41M005-40	
	EP 510174	B1	941019	(9440)	EN	20 pp	B41M005-40	
		R:	DE FR GB IT NL SE					
	DE 69104704	E	941124	(9501)			B41M005-40	
ADT	WO 9209443	A1	WO 91-US8604	911118;	AU 9190679	A AU 91-90679	911118,	
	WO 91-US8604	911118;	EP 510174	A1 WO 91-US8604	911118,	EP 92-900931		
	911118;	US 5200297	A US 90-616854	901121;	JP 05503899	W WO 91-US8604		
	911118,	JP 92-501960	911118;	AU 647227	B AU 91-90679	911118;	EP	
	911118,	EP 510174	B1 WO 91-US8604	911118,	EP 92-900931	911118;	DE 69104704	E DE
	911118,	WO 91-US8604	911118,	EP 92-900931	911118;	DE 69104704	911118,	
FDT	AU 9190679	A	Based on	WO 9209443;	EP 510174	A1 Based on	WO 9209443;	
	JP 05503899	W	Based on	WO 9209443;	AU 647227	B Previous Publ.	AU 9190679,	
	911118,	Based on	WO 9209443;	EP 510174	B1 Based on	WO 9209443;	DE 69104704	E Based on EP 510174, Based on WO 9209443
PRAI	US 90-616854		901121					

L5 ANSWER 15 OF 35 WPIDS COPYRIGHT 1996 DERWENT INFORMATION LTD  
AN 92-216895 [26] WPIDS  
DNN N92-164685 DNC C92-098194  
TI Thermal imaging laminar medium - comprises sheet-like web materials, thermoplastic intermediate layer and layer of porous or particulate image-forming cpd..  
DC A89 G05 P75 P83  
IN CHANG, K C  
PA (INTP) POLAROID CORP  
CYC 18  
PI WO 9209442 A1 920611 (9226)\* EN 55 pp <--  
RW: AT BE CH DE DK ES FR GB GR IT LU NL SE  
W: AU CA JP KR  
AU 9190892 A 920625 (9239)  
US 5155003 A 921013 (9244) 14 pp  
EP 511374 A1 921104 (9245) EN 55 pp  
R: DE FR GB IT NL SE  
JP 05503897 W 930624 (9330) 16 pp  
AU 647230 B 940317 (9416)  
EP 511374 B1 941019 (9440) EN 22 pp  
R: DE FR GB IT NL SE  
DE 69104705 E 941124 (9501)  
ADT WO 9209442 A1 WO 91-US8601 911118; AU 9190892 A AU 91-90892 911118,  
WO 91-US8601 911118; US 5155003 A US 90-616982 901121; EP 511374 A1  
WO 91-US8601 911118, EP 92-901159 911118; JP 05503897 W WO 91-US8601  
911118, JP 92-501318 911118; AU 647230 B AU 91-90892 911118; EP  
511374 B1 WO 91-US8601 911118, EP 92-901159 911118; DE 69104705 E DE  
91-604705 911118, WO 91-US8601 911118, EP 92-901159 911118  
FDT AU 9190892 A Based on WO 9209442; EP 511374 A1 Based on WO 9209442;  
JP 05503897 W Based on WO 9209442; AU 647230 B Previous Publ. AU  
9190892, Based on WO 9209442; EP 511374 B1 Based on WO 9209442; DE  
69104705 E Based on EP 511374, Based on WO 9209442  
PRAI US 90-616982 901121  
AB WO 9209442 A UPAB: 931006  
The medium, which is actuatable in response to intense image-forming radiation, for prodn. of an image comprises: (i) a first sheet-like web material which is transparent to the image-forming radiation and has at least a surface zone or layer of polymeric material heat-activatable upon subjection of the thermal imaging medium to

brief and intense radiation; (ii) a thermoplastic intermediate layer having cohesivity in excess of its adhesivity for the surface zone or layer of heat-activatable polymeric material; (iii) a layer of porous or particulate image-forming substance having adhesivity for the thermoplastic intermediate layer in excess of the adhesivity of the thermoplastic intermediate layer for the surface zone or layer of heat-activatable polymer material; and (iv) a second sheet-like web-like material covering the layer (iii) and laminated (in)directly to the image-forming substance. The thermal imaging medium absorbs radiation at or near the interface of the surface zone or layer of heat-activatable polymeric material and the thermoplastic intermediate layer, at the wavelength of the exposing source, and converts absorbed energy into thermal energy of sufficient intensity to heat activate the surface zone or layer rapidly, the heat-activated surface zone or layer, on rapid cooling, attaching the thermoplastic intermediate layer to the first sheet-like web material.

USE/ADVANTAGE - The thermal imaging medium is adapted to image formation by imagewise exposure of portions of the medium to radiation of sufficient intensity to attach exposed portions of the thermoplastic intermediate layer and image-forming substance firmly to the first sheet-like web material, and by removal to the second sheet-like web material, upon sepn. of the first and second sheet-like web materials after the imagewise exposure, of unexposed portions of the image-forming substance and the thermoplastic intermediate layer, to provide first and second images on the sheet-like web materials. The thermoplastic intermediate layer provides surface protection for the second image on the second web material.

2/2

PI WO 9209442 A1 920611 (9226)\* EN 55 pp B41M005-40 <--  
RW: AT BE CH DE DK ES FR GB GR IT LU NL SE  
W: AU CA JP KR  
AU 9190892 A 920625 (9239) B41M005-40  
US 5155003 A 921013 (9244) 14 pp G03C003-00  
EP 511374 A1 921104 (9245) EN 55 pp B41M005-40  
R: DE FR GB IT NL SE  
JP 05503897 W 930624 (9330) 16 pp B41M005-40  
AU 647230 B 940317 (9416) B41M005-40  
EP 511374 B1 941019 (9440) EN 22 pp B41M005-40

08/479,077

R: DE FR GB IT NL SE

DE 69104705 E 941124 (9501) B41M005-40  
ADT WO 9209442 A1 WO 91-US8601 911118; AU 9190892 A AU 91-90892 911118,  
WO 91-US8601 911118; US 5155003 A US 90-616982 901121; EP 511374 A1  
WO 91-US8601 911118, EP 92-901159 911118; JP 05503897 W WO 91-US8601  
911118, JP 92-501318 911118; AU 647230 B AU 91-90892 911118; EP  
511374 B1 WO 91-US8601 911118, EP 92-901159 911118; DE 69104705 E DE  
91-604705 911118, WO 91-US8601 911118, EP 92-901159 911118  
FDT AU 9190892 A Based on WO 9209442; EP 511374 A1 Based on WO 9209442;  
JP 05503897 W Based on WO 9209442; AU 647230 B Previous Publ. AU  
9190892, Based on WO 9209442; EP 511374 B1 Based on WO 9209442; DE  
69104705 E Based on EP 511374, Based on WO 9209442  
PRAI US 90-616982 901121

L5 ANSWER 16 OF 35 WPIDS COPYRIGHT 1996 DERWENT INFORMATION LTD  
AN 91-352529 [48] WPIDS  
DNN N91-282919 DNC C91-159321  
TI Thermal transfer elements and assemblages - contg. squarylium cpds.  
as IR absorbers.  
DC E23 G05 P75 P84 T04  
IN KELLOGG, R E; LAGANIS, E D; MA, S H  
PA (DUPO) DU PONT DE NEMOURS & CO E I; (KELL-I) KELLOGG R E  
CYC 9  
PI US 5019549 A 910528 (9148)\* <--  
EP 482595 A 920429 (9218) EN 9 pp  
R: DE FR GB IT NL  
AU 9186736 A 920430 (9226)  
CA 2053739 A 920426 (9229)  
JP 04263992 A 920918 (9244) 6 pp  
ADT US 5019549 A US 90-603278 901025; EP 482595 A EP 91-118041 911023;  
AU 9186736 A AU 91-86736 911024; CA 2053739 A CA 91-2053739 911018;  
JP 04263992 A JP 91-303787 911024  
PRAI US 90-603278 901025  
AB US 5019549 A UPAB: 930928  
A new dye donor element for laser-induced thermal transfer comprises  
a support bearing a colourant layer which contains a colourant  
(sublimable dye or pigment), an I.R. absorbing cpd. of formula (I)  
and, pref. a binder. A new thermal transfer assemblages comprises  
the claimed donor element and a receiver sheet. R1, R2, R3 and R4  
each independently = 1-8C alkyl.

More specifically R1=R2=R3=R4. The cpd. 'SQS' where R1=R3=R3=R4 =t-butyl is specifically claimed as (I).

(I) pref. comprises 0.1-10, more pref. 1-5% of the total coating wt.

ADVANTAGE - SQS is soluble in common non-reactive solvents, has strong IR and little or no visible absorption and the absorption max. (in CH<sub>2</sub>Cl<sub>2</sub>) is 814 nm i.e. suitable for IR laser light.

In an example, a coating soln. contained 0.188 pts.wt. Red P-1339, 0.180 pts. cellulose acetate butyrate (17% butyl), 0.0075 pts. SQS and 9.62 pts. CH<sub>2</sub>Cl<sub>2</sub>. The soln. was coated onto corona discharge-treated PET film and dried forming a 0.55 micron layer. The coated side was contacted with a receiver sheet and the assemblage taped onto a test drum. The uncoated side was exposed on the rotating drum to a 100 micro-W laser emitting at 830 nm. At 0.33 J/cm<sup>2</sup> intense magenta lines 0.8 microns wide were obtd. on the receiver sheet. A control coating contg. no SQS produced, in a similar test, no image on the receiver sheet. (Previously notified in Week 9148)

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PI	US 5019549	A	910528	(9148)*	<--		
	EP 482595	A	920429	(9218)	EN	9 pp	
	R: DE FR GB IT NL						
	AU 9186736	A	920430	(9226)		G03F007-027	
	CA 2053739	A	920426	(9229)		B41M005-38	
	JP 04263992	A	920918	(9244)	6 pp	B41M005-38	
ADT	US 5019549	A	US 90-603278	901025;	EP 482595	A EP 91-118041	911023;
	AU 9186736	A	AU 91-86736	911024;	CA 2053739	A CA 91-2053739	911018;
	JP 04263992	A	JP 91-303787	911024			
PRAI	US 90-603278		901025				

L5 ANSWER 17 OF 35 WPIDS COPYRIGHT 1996 DERWENT INFORMATION LTD

AN 91-203023 [28] WPIDS

DNN N91-155207 DNC C91-087793

TI Heat- and light-stable optical recording medium - has organic film recording layer contg. squarylium dye and carboxylic acid-contg. metallic complex.

DC E24 G06 P75 T03 W04

IN MIHARA, C; SANTOH, T; SUGATA, H

PA (CANO) CANON KK

CYC 2

PI JP 03126581 A 910529 (9128)\*

<--

US 5190849 A 930302 (9311) 33 pp

ADT JP 03126581 A JP 89-266966 891012; US 5190849 A US 90-596034 901011

PRAI JP 89-266966 891012

AB JP03126581 A UPAB: 930928

Optical recording medium has an organic film recording layer contg. squarylium dyes of formula (I) and/or dyes of formula (II), and a carboxylic acid-contg. metallic complex. In the formulae A+ is a cationic bivalent organic residual gp. and B is a monovalent organic residual gp.

ADVANTAGE - A high sensitivity and a high C/N ratio can be obtd. and recording reproduction characteristics of the optical recording medium that has a clear threshold value for laser power for reading are obtd. The optical recording medium has high stability to heat and to light and has good shelf life and it has little deterioration when it is reproduced many times.

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PI JP 03126581 A 910529 (9128)\*

<--

US 5190849 A 930302 (9311) 33 pp G11B007-24

ADT JP 03126581 A JP 89-266966 891012; US 5190849 A US 90-596034 901011

PRAI JP 89-266966 891012

L5 ANSWER 18 OF 35 WPIDS COPYRIGHT 1996 DERWENT INFORMATION LTD

AN 89-312867 [43] WPIDS

DNN N89-238091 DNC C89-138553

TI Squarylium dye mfr. - by dehydration condensn. of dye intermediate and squaric acid in organic solvent, under high pressure.

DC E23 E24 G08 P75 P84 S06

PA (AGEN) AGENCY OF IND SCI & TECHNOLOGY

CYC 1

PI JP 01230674 A 890914 (8943)\* 5 pp <--

JP 03075578 B 911202 (9201)

ADT JP 01230674 A JP 88-59126 880311; JP 03075578 B JP 88-59126 880311

PRAI JP 88-59126 880311

AB JP01230674 A UPAB: 930923

In a mfg. a squarylium dye of formula (II) by dehydration condensn. of a dye intermediate of formula R-H (I) and squaric acid in an organic solvent, the improvement comprises that the reaction is carried out under a high pressure of at least 1000 kg/cm<sup>2</sup>. In formulae, R = gp. of formula (i)-(iv); R<sub>1</sub> = C<sub>18</sub>H<sub>37</sub>, R<sub>2</sub> = H, CH<sub>3</sub> or

08/479,077

Cl, R<sub>3</sub> = CH<sub>3</sub>, R<sub>4</sub> = H or CH<sub>3</sub>, R<sub>5</sub> = H or Cl, X = C(CH<sub>3</sub>)<sub>2</sub>, Se or S and Y = p-chlorobenzene sulphonic acid; and R' = (a) - (d).

USE/ADVANTAGE - Provides a high yield mfr. of squarylium dyes with a long chain gp. and a quinoline structure. These squarilium cpds. are useful as charge carrier generating agents for electrophotographic photosensitive materials and recording materials for optical disks.

0/0

PI JP 01230674 A 890914 (8943)\* 5 pp <--  
JP 03075578 B 911202 (9201)  
ADT JP 01230674 A JP 88-59126 880311; JP 03075578 B JP 88-59126 880311  
PRAI JP 88-59126 880311

L5 ANSWER 19 OF 35 WPIDS COPYRIGHT 1996 DERWENT INFORMATION LTD  
AN 88-318788 [45] WPIDS  
DNC C88-140700  
TI Resin plate for optical condenser - contains specified squarylium cpd..  
DC A14 A60 A89 E14  
PA (NIPK) NIPPON KAYAKU KK  
CYC 1  
PI JP 63235370 A 880930 (8845)\* 5 pp <--  
ADT JP 63235370 A JP 87-68791 870325  
PRAI JP 87-68791 870325  
AB JP63235370 A UPAB: 930923

The plate is characterised by contg. squarilium cpd..

USE/ADVANTAGE - Compared to conventional plate based on the optical condensing effect by coumalin-, naphthalic acid-, quinophthalonic acid-, rhodamine-, thioxanthene-, benzo- pyrane-, thioindigo- or perylene colour, the plate absorbs light having wavelength above 600 nm and releases light having longer wavelength than absorbed light. The released light has high optical density.

In an example, 0.3 pts.wt. of a cpd. of formula (I) was added to 100 pts.wt. of PMMA pellet and blended thoroughly. The blend was injection moulded at 250 deg.C to make 2mm thick plate. The plate showed max. absorption value with the light of 642nm wavelength and max. radiation value at 650nm wavelength.

0/0

PI JP 63235370 A 880930 (8845)\* 5 pp <--  
ADT JP 63235370 A JP 87-68791 870325

08/479,077

PRAI JP 87-68791 870325

L5 ANSWER 20 OF 35 WPIDS COPYRIGHT 1996 DERWENT INFORMATION LTD

AN 88-266722 [38] WPIDS

DNN N88-202348 DNC C88-118730

TI Information recording medium mfr. - by coating liq. contg. fluorine-substd. nitro cpd. and dye on substrate and drying.

DC A89 E14 E16 E24 G06 L03 P75 T03 W04

PA (FUJF) FUJI PHOTO FILM CO LTD

CYC 1

PI JP 63193348 A 880810 (8838)\* 11 pp &lt;--

ADT JP 63193348 A JP 87-25008 870204

PRAI JP 87-25008 870204

AB JP63193348 A UPAB: 930923

In mfg. information recording medium having a recording layer capable of writing and/or reading out information on its substrate, e.g., polycarbonate film, PMMA film, etc., the recording layer is formed by coating a coating liq. contg. a fluorine-substd. nitro cpd., of formula (where A is opt. substd. 1-20 C alkyl or aryl) dissolved in a solvent, e.g., toluene, xylene, etc., together with a dye, e.g., at least one selected from cyanine dye, phthalocyanine dye, pyrylium dye, thiopyrylium dye, squarilium dye, indophenol dye, indoaniline dye, triphenylmethane dye, quinone dye, metal complex dyes, etc., on the surface of a substrate and drying it.

The coating liq. may contain an antioxidant, an UV absorber, a plasticiser, a lubricant, a binder, etc., and the pref. thickness of the recording layer is 0.01-10 microns. The recording layer may also be provided with a reflection layer of Mg, Se, Y, Ti, etc., and a protective layer of SiO, SiO<sub>2</sub>, MgF<sub>2</sub>, etc.

USE/ADVANTAGE - This method can effectively and simply produce high-quality information recording medium having excellent recording capability involving writing and reading-out functions of information by laser at low cost. The recording medium is effectively applicable to video or audio discs, disc memory, facsimile, etc.

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PI JP 63193348 A 880810 (8838)\* 11 pp

&lt;--

ADT JP 63193348 A JP 87-25008 870204

PRAI JP 87-25008 870204

L5 ANSWER 21 OF 35 WPIDS COPYRIGHT 1996 DERWENT INFORMATION LTD

AN 88-266721 [38] WPIDS

DNN N88-202347 DNC C88-118729

TI Information recording medium mfr. - by forming recording layer by coating with solvent contg. fluorine-substd. amide and a dye.

DC A89 E14 E16 E24 G06 L03 P75 T03 W04

PA (FUJF) FUJI PHOTO FILM CO LTD

CYC 1

PI JP 63193347 A 880810 (8838)\* 11 pp <--

ADT JP 63193347 A JP 87-25006 870204

PRAI JP 87-25006 870204

AB JP63193347 A UPAB: 930923

In mfg. information recording medium having a recording layer capable of writing and/or reading out information on its substrate, e.g., polycarbonate film, PMMA film, epoxy resin film, amorphous polyolefin, etc., the recording layer is formed by coating a solvent contg. a fluorine-substd. amide of formula A-CON(R1)-R2 (where A is opt. substd. alkyl or aryl and its at least one H is substd. with F atom and R1 and R2 are each opt. substd. 1-20 C alkyl or aryl) contg. a dye dissolved, e.g., at least one selected from cyanine dye, phthalocyanine dye, pyrylium dye, thiopyrylium dye, squarilium dye, azulenium dye, indophenol dye, indoaniline dye, triphenylmethane dye, quinone dye, quinone dye, metal complex dyes, etc. The coating liq. may contain an antioxidant, an UV absorber, a plasticiser, a lubricant, a binder, etc., and the pref. thickness of the recording layer is 0.01-10 microns. On the recording layer, a reflection layer of Mg, Se, Y, Ti, etc., and a protective layer of SiO, SiO<sub>2</sub>, etc. may be provided.

USE/ADVANTAGE - This method can effectively and simply produce high-quality information recording medium having excellent recording capability involving writing and reading out function of information by laser at low cost. The recording medium is used in video or audio discs, disc memory, facsimile, etc.

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PI JP 63193347 A 880810 (8838)\* 11 pp <--

ADT JP 63193347 A JP 87-25006 870204

PRAI JP 87-25006 870204

L5 ANSWER 22 OF 35 WPIDS COPYRIGHT 1996 DERWENT INFORMATION LTD

AN 88-266720 [38] WPIDS

DNN N88-202346 DNC C88-118728

TI Information recording medium mfr. - by forming recording layer by coating with solvent contg. fluorinated carboxylic acid and dye.

DC A89 E14 E17 E24 G06 L03 P75 T03 W04

PA (FUJF) FUJI PHOTO FILM CO LTD

CYC 1

PI JP 63193346 A 880810 (8838)\* 11 pp <--

ADT JP 63193346 A JP 87-25005 870204

PRAI JP 87-25005 870204

AB JP63193346 A UPAB; 930923

In mfg. information recording medium having a recording layer capable of writing and/or reading out information by laser on its substrate, e.g., polycarbonate film, PMMA film, epoxy resin film, amorphous polyolefin, etc., the recording layer is formed by coating a coating liq. composed of a solvent contg. a fluorinated carboxylic acid of formula A-COOH (where A is opt. subst. 1-20 C alkyl or aryl, which is subst. with at least one F atom) as a solvent and also a dissolved dye, e.g., at least one selected from cyanine dye, phthalocyanine dye, pyrylium dye, thiopyrylium dye, squarilium dye, indophenol dye, indoaniline dye, triphenylmethane dye, metal complex dyes, etc., on the surface of a substrate and drying. The coating liquid may contain an antioxidant, an UV absorber, a plasticiser, a lubricant, a binder, etc., and the pref. thickness of the recording layer is 0.01-10 microns. A reflection layer of Mg, Se, Y, Ti, etc., and a protective layer of SiO, SiO<sub>2</sub>, MgF<sub>2</sub>, etc., may be provided on the recording layer.

USE/ADVANTAGE - Method can form high-quality information recording medium having excellent recording capability involving writing and reading-out functions of information by laser at low cost.

0/0

PI JP 63193346 A 880810 (8838)\* 11 pp <--

ADT JP 63193346 A JP 87-25005 870204

PRAI JP 87-25005 870204

L5 ANSWER 23 OF 35 WPIDS COPYRIGHT 1996 DERWENT INFORMATION LTD

AN 88-266719 [38] WPIDS

DNN N88-202345 DNC C88-118727

TI Information recording medium mfr. - by forming recording by coating with solvent contg. fluorinated ether and a dye.

08/479,077

DC A89 E16 E24 G06 L03 P75 T03 W04

PA (FUJF) FUJI PHOTO FILM CO LTD

CYC 1

PI JP 63193345 A 880810 (8838)\* 11 pp <--

ADT JP 63193345 A JP 87-25004 870204

PRAI JP 87-25004 870204

AB JP63193345 A UPAB: 930923

In mfg. information recording medium by providing a recording layer capable of writing and/or reading out information on the surface of a substrate, e.g., of polycarbonate resin, polyester, PMMA, epoxy resin, etc., the recording layer is formed by coating a coating liq. composed of a solvent contg. a fluorinated ether, e.g., an 1-20 C ether with at least one hydrogen subst. with fluorine and a dye dissolved in the solvent, e.g., at least one selected from cyanine dye, phthalocyanine dye, pyrylium dye, thiopyrylium dye, squarilium dye, indophenol dye, indoaniline dye, triphenol dye, quinone dye, metal complex dyes, etc., on the surface of a substrate and drying. The coating liq. may contain an antioxidant, an UV absorber, a plasticiser, a lubricant, etc., in addn. to a binder, e.g., gelatin, cellulose derivs., etc. A protective layer of SiO, SiO<sub>2</sub>, etc., may be provided for the recording layer. The pref. thickness of the recording layer is 0.01-10 microns.

USE/ADVANTAGE - Method can form information recording medium having excellent recording capability involving writing and reading-out functions by laser at low cost. The information recording medium is effectively used in video or audio discs, disc memory for computers, facsimile, etc.

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PI JP 63193345 A 880810 (8838)\* 11 pp <--

ADT JP 63193345 A JP 87-25004 870204

PRAI JP 87-25004 870204

L5 ANSWER 24 OF 35 WPIDS COPYRIGHT 1996 DERWENT INFORMATION LTD

AN 88-258415 [37] WPIDS

DNN N88-196181 DNC C88-115207

TI Optical information recording medium - made by coating a substrate with a soln. of a dye in a solvent contg. a fluorine-contg. cpd..

DC A89 E24 G06 P75

IN INAGAKI, Y; YABE, M

PA (FUJF) FUJI PHOTO FILM CO LTD

CYC 4

PI EP 272933 A 880629 (8837)\* EN 20 pp

R: DE GB

JP 63191687 A 880829 (8837)

JP 63193343 A 880810 (8838)

&lt;--

JP 63193344 A 880810 (8838)

&lt;--

JP 63159090 A 880701 (8901)

&lt;--

US 4832992 A 890523 (8924) 13 pp

EP 272933 B 900801 (9031)

R: DE GB

DE 3764073 G 900906 (9037)

JP 07096333 B2 951018 (9546) 15 pp

ADT EP 272933 A EP 87-311378 871223; JP 63191687 A JP 87-25003 870204;

JP 63193343 A JP 87-25001 870204; JP 63193344 A JP 87-25002 870204;

JP 63159090 A JP 86-307374 861223; US 4832992 A US 87-136962 871223;

JP 07096333 B2 JP 86-307374 861223

FDT JP 07096333 B2 Based on JP 63159090

PRAI JP 86-307374 861223; JP 87-25001 870204; JP 87-25002 870204;  
JP 87-25003 870204

AB EP 272933 A UPAB: 930923

An information recording medium for writing or reading by laser beam comprises a substrate bearing a recording layer formed on the substrate by coating a soln. contg. a dye (I) in a solvent contg. a fluorine-contg. cpd. (II), and drying the coated layer.

The substrate material is pref. polycarbonate, polymethyl methacrylate, epoxy resin, amorphous polyolefin, polyester or PVC. The dye (I) is e.g. a cyanine dye, a phthalocyanine dye, a pyrylium dye, a thiopyrylium dye, a squarylium dye, an azulenium dye, an indophenol dye, an indoaniline dye, a triphenylmethane dye, a quinone dye, an aminium dye, or a metal complex salt dye, etc.

USE/ADVANTAGE - Dyes (I) such as cyanine dyes have good solubility in the (II), so that the coating solns. can easily be prep'd., while the coating solns. do not dissolve polymeric substrates, thus obviating problems such as disappearance of tracking grooves from the surface of the substrate or redn. in reflectance of the recording layer which occurred previously when using halogenated hydrocarbon solvents with high dissolving power. It is also no longer necessary to subject the substrate material to an insolubilising treatment, thus simplifying the process and reducing prodn. cscosts.

0/0

PI EP 272933 A 880629 (8837)\* EN 20 pp  
R: DE GB  
JP 63191687 A 880829 (8837)  
JP 63193343 A 880810 (8838) <--  
JP 63193344 A 880810 (8838) <--  
JP 63159090 A 880701 (8901) <--  
US 4832992 A 890523 (8924) 13 pp  
EP 272933 B 900801 (9031)  
R: DE GB  
DE 3764073 G 900906 (9037)  
JP 07096333 B2 951018 (9546) 15 pp B41M005-26  
ADT EP 272933 A EP 87-311378 871223; JP 63191687 A JP 87-25003 870204;  
JP 63193343 A JP 87-25001 870204; JP 63193344 A JP 87-25002 870204;  
JP 63159090 A JP 86-307374 861223; US 4832992 A US 87-136962 871223;  
JP 07096333 B2 JP 86-307374 861223  
FDT JP 07096333 B2 Based on JP 63159090  
PRAI JP 86-307374 861223; JP 87-25001 870204; JP 87-25002 870204;  
JP 87-25003 870204

L5 ANSWER 25 OF 35 WPIDS COPYRIGHT 1996 DERWENT INFORMATION LTD  
AN 88-232843 [33] WPIDS  
TI Optical recording material - includes recording layer contg.  
pyrilium cpd(s). and aluminium salt cpd. and/or di immonium salt  
cpd..  
DC E19 G06 P75 T03 W04  
PA (CANO) CANON KK  
CYC 1  
PI JP 63168392 A 880712 (8833)\* 21 pp <--  
ADT JP 63168392 A JP 86-311330 861230  
PRAI JP 86-311330 861230  
PI JP 63168392 A 880712 (8833)\* 21 pp <--  
ADT JP 63168392 A JP 86-311330 861230  
PRAI JP 86-311330 861230

L5 ANSWER 26 OF 35 WPIDS COPYRIGHT 1996 DERWENT INFORMATION LTD  
AN 88-120762 [18] WPIDS  
DNN N88-091675 DNC C88-054061  
TI Optical information recording material - contg. specified dyes and  
metal chelate cpds. for good reflectance and storage stability.  
08/479,077

DC E23 G06 L03 T03 W04  
IN FUKUI, T; MIURA, K; OGUCHI, Y; TAKASU, Y  
PA (CANO) CANON KK  
CYC 5  
PI EP 264198 A 880420 (8818)\* EN 87 pp  
R: DE FR GB  
JP 63074689 A 880405 (8819)  
JP 63165181 A 880708 (8833)  
JP 63165182 A 880708 (8833)  
JP 63168393 A 880712 (8833) <--  
US 5178995 A 930112 (9305) 47 pp  
EP 264198 B1 930303 (9309) EN 97 pp  
R: DE FR GB  
DE 3784435 G 930408 (9315)  
ADT EP 264198 A EP 87-308299 870918; JP 63074689 A JP 86-221136 860918;  
JP 63165181 A JP 86-309073 861227; JP 63165182 A JP 86-309074  
861227; JP 63168393 A JP 86-311331 861230; US 5178995 A Cont of US  
87-97162 870916, Cont of US 89-405580 890908, US 91-679144 910328;  
EP 264198 B1 EP 87-308299 870918; DE 3784435 G DE 87-3784435 870918,  
EP 87-308299 870918  
FDT DE 3784435 G Based on EP 264198  
PRAI JP 86-221136 860918; JP 86-309073 861227; JP 86-309074 861227;  
JP 86-311331 861230  
AB EP 264198 A UPAB: 930923  
An optical information recording material contains (a) a cpd.  
selected from cpds. of formulae (I) to (III) and pyrylium cpds. and  
(b) a metal chelate cpd. where R1-5 = H, or opt. substd. alkyl,  
aralkyl, aryl, styryl or heterocyclic gp. or alkenyl; R1 is a gp.  
(i); R'' is a gp. (ii) R''' is a gp. (iii); R'''' is a gp. (iv);  
R21-25 = H, halogen or alkyl; A,B,D,E = H, alkyl, alkenyl, or an  
opt. substd. aryl or aralkyl gp. m1 = 0 or 1; n1, m2, n2 = 0,1 or  
2; and X(-) = anion; R31-37 = H, halogen or monovalent organic  
residue; or adjacent gps. may form a fused ring; A = divalent  
organic residue and (i) is neutral and p is 1; (ii) carries a  
negative charge and p is 0; OR (iii) carries a positive charge and p  
is 2; Z = anion.  
USE/ADVANTAGE - The material is used in optical discs and cards  
for laser recording. It has good reflectance and storage stability.  
0/0  
PI EP 264198 A 880420 (8818)\* EN 87 pp  
08/479,077

R: DE FR GB

JP 63074689 A 880405 (8819)

JP 63165181 A 880708 (8833)

JP 63165182 A 880708 (8833)

JP 63168393 A 880712 (8833)

<--

US 5178995 A 930112 (9305) 47 pp G11B007-24

EP 264198 B1 930303 (9309) EN 97 pp G11B007-24

R: DE FR GB

DE 3784435 G 930408 (9315) G11B007-24

ADT EP 264198 A EP 87-308299 870918; JP 63074689 A JP 86-221136 860918;  
JP 63165181 A JP 86-309073 861227; JP 63165182 A JP 86-309074  
861227; JP 63168393 A JP 86-311331 861230; US 5178995 A Cont of US  
87-97162 870916, Cont of US 89-405580 890908, US 91-679144 910328;  
EP 264198 B1 EP 87-308299 870918; DE 3784435 G DE 87-3784435 870918,  
EP 87-308299 870918

FDT DE 3784435 G Based on EP 264198

PRAI JP 86-221136 860918; JP 86-309073 861227; JP 86-309074 861227;  
JP 86-311331 861230

L5 ANSWER 27 OF 35 WPIDS COPYRIGHT 1996 DERWENT INFORMATION LTD

AN 87-353193 [50] WPIDS

DNN N87-264589 DNC C87-151325

TI Laser beam recording process - involves applying low m.pt. toner to  
recording surface and scanning to beam from semiconductor laser.

DC G05 P75

PA (COPB) COPAL CO LTD; (COPB) COPAL DENSHI KK

CYC 1

PI JP 62257890 A 871110 (8750)\* 5 pp <--

ADT JP 62257890 A JP 86-101066 860502

PRAI JP 86-101066 860502

AB JP62257890 A UPAB: 930922

Process comprises: (1) uniformly applying, to the recording medium  
surface, low m.pt. toner contg. pigment capable of absorbing near IR  
rays. (2) Scanning the toner-coated surface of the recording medium  
with a beam emitted from semiconductor laser controlled according to  
image information, to effect selective melting and fixation of the  
toner; and (3) removing unfixed toner to obtain visible images on  
the recording medium surface.

ADVANTAGE - Process permits increase of recording speed without  
adding pre-heating step.

0/3

PI JP 62257890 A 871110 (8750)\* 5 pp <--  
ADT JP 62257890 A JP 86-101066 860502  
PRAI JP 86-101066 860502

L5 ANSWER 28 OF 35 WPIDS COPYRIGHT 1996 DERWENT INFORMATION LTD

AN 87-203445 [29] WPIDS

DNN N87-152113 DNC C87-085216

TI High density optical information-recording material - comprises laminate of heat-sensitive material and light-absorbing material contg. pyrylium cpd..

DC A89 E13 E23 G06 P75 T03 W04

PA (CANO) CANON KK

CYC 1

PI JP 62132690 A 870615 (8729)\* <--

ADT JP 62132690 A JP 85-272810 851204

PRAI JP 85-272810 851204

AB JP62132690 A UPAB: 930922

Recording material comprises (A) a heat-sensitive material and (B) light-absorbing material which are laminated to each other or mixed. The recording material can display or read by heating specific area to a specific temp.. (A) becomes uniformly transparent or opaque or heating or cooling at a specific temp.. (B) Consists of (b) pyrylium cpd.. The recording material is recorded, erased and displayed informations by optical means.

Pref. (b) is of formula (I), (II), (III) or (IV). In (I), X1 and X2 are S, O or Se; Z1 is (un)subst. pyrylium, thiopyrylium, selenapyrylium, , , Z2 is pyran, thiopyran, selenapyran, benzopyran, benzothiopyran, R1-R4 are H, (un)subst. alkyl or (un)subst. aryl; R5-R7 are H, halogen, (un)subst. alkyl, (un)subst. aryl or (un)subst. aralkyl; m and l = 1 or 2; n = 0, 1 or 2; when n is 2, each R5 may be the same and each R6 may be the same; A is an anion.

In (II), Z3 = atomic gp. necessary to form an (un)subst. nitrogen-contg. heterocyclic; Z1 = atomic gp. necessary to form (un)subst. pyran, thiopyran, selenapyran, benzopyran, benzothiopyran, X = S, O or Se; Z4 = divalent hydrocarbon constituting (un)subst. 5- or 6-membered ring; R1 = H or (un)subst. alkyl; R2 and R3 = H, halogen or monovalent organic residue; R4 = H or halogen; A = anion; m and n = 0, or 1; l = 0, 1 or

08/479,077

2.

In (III), A = (IIIa) or (IIIb); X1 and X2 = S, O or Se; R1-R4 are H, alkyl, alkoxy, (un)substd. aryl, (un)substd. styryl, (un)substd. 4-phenyl-1,3-butadienyl or (un=)substd. heterocyclic; R1 and R2 may together form (un)substd. benzene; R3 and R4 may together form an (un)substd. benzene ring; m and n = 1c. In (IV) R1 and R2 are H, (un)substd. alkyl, (un)substd. aryl or (un)substd. styryl; R3 = (un)substd. aryl or (un)substd. heterocyc R4 and R5 = H or alkyl; A is anion; m = 1 or 2; n = 0, 1 or 2; when n is 2, each R4 may be the same and each R5 may be the same. ADVANTAGE - The recording material can be recorded and erased optic

PI JP 62132690 A 870615 (8729)\* <--  
ADT JP 62132690 A JP 85-272810 851204  
PRAI JP 85-272810 851204

L5 ANSWER 29 OF 35 WPIDS COPYRIGHT 1996 DERWENT INFORMATION LTD  
AN 86-346554 [52] WPIDS  
CR 86-070578 [11]; 87-143285 [20]  
DNN N86-258620 DNC C86-150485  
TI New colourless di- and tri-aryl methane cpds. - form coloured cpds. on heating by intra-molecular acylation and are used in heat sensitive recording materials.  
DC E13 G05 P75  
IN BORROR, A L; ELLIS, E W  
PA (INTP) POLAROID CORP  
CYC 8  
PI WO 8607312 A 861218 (8652)\* EN 54 pp <--  
RW: DE FR GB NL  
W: JP  
EP 224568 A 870610 (8723) EN  
R: DE FR GB NL  
JP 62503084 W 871210 (8804)  
US 4720449 A 880119 (8805)  
EP 224568 B 891115 (8946) EN  
R: DE FR GB NL  
DE 3666929 G 891221 (9001)  
US 4960901 A 901002 (9042)  
CA 1276029 C 901106 (9050)  
JP 07017104 B2 950301 (9513) 25 pp  
ADT WO 8607312 A WO 86-US1128 860523; EP 224568 A EP 86-903886 860523;  
08/479,077

US 4720449 A US 86-861377 860514; US 4960901 A US 87-114049 871029;  
JP 07017104 B2 JP 86-503076 860523, WO 86-US1128 860523  
FDT JP 07017104 B2 Based on JP 62503084, Based on WO 8607312  
PRAI US 85-740889 850603; US 86-861377 860514  
AB WO 8607312 A UPAB: 950412

A new cpd. of formula (I) is claimed (where B= carbocyclic or heterocyclic aryl ring; C1=meso carbon atom; X=-CO-, -SO2-, or -CH2-; Y=substit. which fragments on heating to liberate a gp. capable of acylating the N atom; E=H; and electron donating gp; as electron withdrawing gp; or an electron donating or electron neutral gp which fragments on heating to give an electron withdrawing gp; S=0 or 1; and Z and Z' complete the auxochromophoric system of a diarylmethane or (bridged)triarylmethane dye, when the N-contg. ring is open.

Also claimed is a heat-sensitive material contg. a colourless di- or tri-arylmethane as above (but defined in more general terms) which becomes coloured on heating due to intramolecular acylation of the N-atom causing ring opening.

USE/ADVANTAGE - The cpds. give a wide range of colours and are used for prepn. of mono-, bi- and polychrome images. As the colour forming reaction is intramolecular, a further reagent with which the cpds would have to be contacted is not required. Colouration takes place at moderately elevated temps and conventional thermal imaging appts. can be used.

0/0

Dwg.0/0

PI WO 8607312 A 861218 (8652)\* EN 54 pp <--  
RW: DE FR GB NL  
W: JP  
EP 224568 A 870610 (8723) EN  
R: DE FR GB NL  
JP 62503084 W 871210 (8804)  
US 4720449 A 880119 (8805)  
EP 224568 B 891115 (8946) EN  
R: DE FR GB NL  
DE 3666929 G 891221 (9001)  
US 4960901 A 901002 (9042)  
CA 1276029 C 901106 (9050)  
JP 07017104 B2 950301 (9513) 25 pp B41M005-26  
ADT WO 8607312 A WO 86-US1128 860523; EP 224568 A EP 86-903886 860523;  
08/479,077

US 4720449 A US 86-861377 860514; US 4960901 A US 87-114049 871029;  
JP 07017104 B2 JP 86-503076 860523, WO 86-US1128 860523  
FDT JP 07017104 B2 Based on JP 62503084, Based on WO 8607312  
PRAI US 85-740889 850603; US 86-861377 860514

L5 ANSWER 30 OF 35 WPIDS COPYRIGHT 1996 DERWENT INFORMATION LTD  
AN 86-236807 [36] WPIDS  
DNN N86-176572 DNC C86-102074  
TI New squarylium cpds. with max. absorption at 800-900 nm - useful for  
laser information recording.  
DC E13 E23 G08 P84 S06  
PA (MITU) MITSUBISHI CHEM IND LTD  
CYC 1  
PI JP 61167681 A 860729 (8636)\* 3 pp <--  
ADT JP 61167681 A JP 85-8730 850121  
PRAI JP 85-8730 850121  
AB JP61167681 A UPAB: 930922  
Squarylium cpds. of formula (I) are new. R=H, alkyl, alkoxy or  
halogen atom; and n=0,1 or 2.

USE/ADVANTAGE - Squarylium cpds. (I) have max. absorption  
around 800-900 nm, and are useful as various information materials  
using laser sources for example laser write-in liq. crystal display,  
electrophoto-sensitive material for electrophotographic printer  
using laser beam as the source of light or recording material for  
optical disc capable of writing-in and reading-out by laser, or IR  
ray cutting filter.

In an example, to prepare (I) to 0.15 g of 3,4-dihydroxy-3-  
cyclobutene 1,2-dione was added 15 ml of n-butyl alcohol. The mixt.  
was heated at about 100 deg.C to obtain a soln. To this soln. were  
added 1 ml quinoline, 0.85 g 4-methyl-benzothiopyrylium perchlorate  
and 10 ml benzene in sequence. The mixt. was stirred at 95-105  
deg.C for about 3 hrs. during which time 10 ml of benzene and 6 ml  
of butanol were added to the reaction system portion-wise. The water  
produced was distilled off azeotropically. The reaction soln. was  
cooled and n-hexane added to allow crystals to ppt. The crude prod.  
was purified by column chromatography to give a cpd. of formula (I)  
where n=0, whose m.pt. was 340 deg.C or higher. The max. absorption  
wavelength of visible absorption spectrum in chloroform soln. was  
842 nm.

0/0

08/479,077

PI JP 61167681 A 860729 (8636)\* 3 pp <--  
ADT JP 61167681 A JP 85-8730 850121  
PRAI JP 85-8730 850121

L5 ANSWER 31 OF 35 WPIDS COPYRIGHT 1996 DERWENT INFORMATION LTD  
AN 85-192707 [32] WPIDS  
DNN N85-144457 DNC C85-083980  
TI LC element - comprising LC compsn. sealed in cell and contg. cyanine  
dye.  
DC A85 E13 L03 P81 U11  
PA (CANO) CANON KK  
CYC 1  
PI JP 60118791 A 850626 (8532)\* 10 pp <--  
ADT JP 60118791 A JP 83-226276 831130  
PRAI JP 83-226276 831130  
AB JP60118791 A UPAB: 930925

Element comprises liq. crystal compsn. sealed in a cell and contg.  
cpd. of formula (I) where A(-) is group of formula (II) or (III). X1  
and X2 are each independently -O-, -S- or -Se-, Z1 is residue  
required for completing (non) substd. pyrylium, thiapyrylium,  
serenapyrylium, benzopyrylium, benzothiapyrylium,  
benzoserenapyrylium, naphthopyrylium, naphthotriapyrylium or  
naphthoserenapyrylium, Z2 is residue required for completing  
(non) substd. pyran, thiapyran, serenapyran, benzopyran,  
benzothiapyran, benzoserenapyran, naphthopyran, naphthothiapyran, or  
naphthoserenapyran, R1-R4 are each H, alkyl, alkoxy, (non) substd.  
aryl, styryl or 4-phenyl-1,3-butadiene or heterocyclic ring group or  
R1 and R2 and/or R3 and R4 may be each coupled together to form  
(non) substd. benzene ring.

ADVANTAGE - Liq. crystal element forms optical image  
corresponding to signals of laser beams.

2/2

PI JP 60118791 A 850626 (8532)\* 10 pp <--  
ADT JP 60118791 A JP 83-226276 831130  
PRAI JP 83-226276 831130

L5 ANSWER 32 OF 35 WPIDS COPYRIGHT 1996 DERWENT INFORMATION LTD  
AN 84-208573 [34] WPIDS  
DNN N84-155973 DNC C84-087645  
TI Element for optical recording - has recording layer contg. specified  
08/479,077

pyrilium squarylium or thio-pyriliium squarylium dye.

DC E23 G06 P75 P83 P85 T03 W04

IN GRAVESTEIJ, D J; NIJSSEN, W P M; STEENBERGE, C; VANDERVEEN, J

PA (PHIG) PHILIPS GLOEILAMPENFAB NV

CYC 9

PI EP 116381 A 840822 (8434)\* EN 18 pp

R: DE FR GB IT NL SE

NL 8300155 A 840816 (8436) <--

JP 59172550 A 840929 (8445)

US 4508811 A 850402 (8516)

EP 116381 B 861105 (8645) EN

R: DE FR GB IT NL SE

DE 3461232 G 861211 (8651)

CA 1217197 A 870127 (8709)

JP 04041673 B 920709 (9232) 8 pp

ADT EP 116381 A EP 84-200036 840111; NL 8300155 A NL 83-300155 830117;

JP 59172550 A JP 84-4287 840114; US 4508811 A US 83-547149 831031;

JP 04041673 B JP 84-4287 840114

FDT JP 04041673 B Based on JP 59172550

PRAI NL 83-155 830117

AB EP 116381 A UPAB: 930925

Recording element in which information can be recorded and read optically comprises a support plate bearing a recording layer comprising a pyrilium- or thiopyrilium-squarylium cpd. of formula (I). In (I) X = O or S; R = 3+C alkyl pref. t-butyl; R1 = H or Me. Cpd. of formula (I) new.

USE/ADVANTAGE - Information may be recorded on the element by light of 800 nm. Optical structures (recording tracks, guide tracks, etc.) may be provided in the recording element. The dyes are readily soluble in the usual non-reactive organic solvents e.g. ketones, alcohols, esters, toluene, etc.

0/1

PI EP 116381 A 840822 (8434)\* EN 18 pp

R: DE FR GB IT NL SE

NL 8300155 A 840816 (8436) <--

JP 59172550 A 840929 (8445)

US 4508811 A 850402 (8516)

EP 116381 B 861105 (8645) EN

R: DE FR GB IT NL SE

DE 3461232 G 861211 (8651)

CA 1217197 A 870127 (8709)  
JP 04041673 B 920709 (9232) 8 pp B41M005-26  
ADT EP 116381 A EP 84-200036 840111; NL 8300155 A NL 83-300155 830117;  
JP 59172550 A JP 84-4287 840114; US 4508811 A US 83-547149 831031;  
JP 04041673 B JP 84-4287 840114  
FDT JP 04041673 B Based on JP 59172550  
PRAI NL 83-155 830117

L5 ANSWER 33 OF 35 WPIDS COPYRIGHT 1996 DERWENT INFORMATION LTD  
AN 84-032463 [06] WPIDS  
CR 83-823013 [47]; 83-830454 [48]; 83-830455 [48]; 83-830456 [48];  
84-027456 [05]; 84-027457 [05]; 84-032806 [06]; 84-064861 [11];  
93-297396 [38]; 93-297397 [38]  
DNN N84-024400 DNC C84-013721  
TI Organic film for optical disk recording - contg. specified  
heterocyclic gp. substd polymers.  
DC A89 E13 E14 E19 E23 E24 G06 G08 P75 P81 P83 P84  
IN KATAGIRI, K; OGUCHI, Y; TAKASU, T; TAKASU, Y  
PA (CANO) CANON KK  
CYC 2  
PI JP 58220143 A 831221 (8406)\* 17 pp <--  
JP 02011140 B 900313 (9014)  
US 5246814 A 930921 (9339) 55 pp  
US 5278026 A 940111 (9403) 59 pp  
US 5320930 A 940614 (9423) 56 pp  
US 5382497 A 950117 (9509) 57 pp  
ADT JP 58220143 A JP 82-103604 820616; US 5246814 A Cont of US 83-481741  
830404, Cont of US 85-756570 850718, Cont of US 87-53563 870521, Div  
ex US 89-378491 890711, Div ex US 90-512587 900424, US 91-769636  
911001; US 5278026 A Cont of US 83-481741 830404, Cont of US  
85-756570 850718, Cont of US 87-53563 870521, Cont of US 89-378491  
890711, Div ex US 90-512588 900424, US 91-769397 911001; US 5320930  
A Cont of US 83-481741 830404, Cont of US 85-756570 850718, Cont of US  
87-53563 870521, Div ex US 89-378491 890711, Div ex US 90-512587  
900424, Div ex US 91-769636 911001, US 93-86113 930706; US 5382497 A  
Cont of US 83-481741 830404, Cont of US 85-756570 850718, Cont of US  
87-53563 870521, Div ex US 89-378491 890711, Div ex US 90-512587  
900424, Div ex US 91-769636 911001, US 93-86113 930706, US  
94-221904 940401  
FDT US 5246814 A Div ex US 5079127; US 5278026 A Div ex US 5079128; US  
08/479,077

5320930 A Div ex US 5079127, Div ex US 5246814; US 5382497 A Div ex  
 US 5079127, Div ex US 5246814, Div ex US 5320930

PRAI JP 82-56963 820406; JP 82-64926 820419; JP 82-64927 820419;  
 JP 82-64928 820419; JP 82-102579 820614; JP 82-102580 820614;  
 JP 82-103603 820616; JP 82-103604 820616; JP 82-123144 820715

AB JP58220143 A UPAB: 940803

Film contains (a) cpd. of formula (I). In the formula, A is group (II) or (III); X1 and X2 are S, O or Se; Z1 is atoms necessary to form an (un)subst. pyrylium, thiopyrylium, selenapyrylium, benzopyrylium, benzothiopyrylium, benzoselenapyrylium, naphthopyrylium, naphthothiopyrylium, or naphthoselenapyrylium; Z2 is atoms necessary to form (un)subst. pyran, thiopyran, selenapyran, benzopyran, benzothiopyran, -enzoselenapyran, naphthopyran, naphthothiopyran or naphthoselenapyran; R1-R4 are H, alkyl, alkoxy, (un)subst. aryl, (un)subst. styryl; (un)subst. 4-phenyl-1,3-butadienyl or (un)subst. heterocyclic; R1 and R2 may together form an (un)subst. benzene ring; m and n are each 1 or 2.

Pref. (a) are used as an eutectic complex with polymer having alkylidenediaryl gps. as repeat units.

Film has absorption band in a longer wavelength range of above 750 nm and is stable to heat. Useful as a photosensitive film for electrophotography, for photodisc recording, etc..

Dwg. 0/4

Dwg. 0/4

PI	JP 58220143 A	831221 (8406)*	17 pp	<--
	JP 02011140 B	900313 (9014)		
	US 5246814 A	930921 (9339)	55 pp	G03C005-00
	US 5278026 A	940111 (9403)	59 pp	G03C005-00
	US 5320930 A	940614 (9423)	56 pp	G03C005-00
	US 5382497 A	950117 (9509)	57 pp	G03C005-00

ADT JP 58220143 A JP 82-103604 820616; US 5246814 A Cont of US 83-481741 830404, Cont of US 85-756570 850718, Cont of US 87-53563 870521, Div ex US 89-378491 890711, Div ex US 90-512587 900424, US 91-769636 911001; US 5278026 A Cont of US 83-481741 830404, Cont of US 85-756570 850718, Cont of US 87-53563 870521, Cont of US 89-378491 890711, Div ex US 90-512588 900424, US 91-769397 911001; US 5320930 A Cont of US 83-481741 830404, Cont of US 85-756570 850718, Cont of US 87-53563 870521, Div ex US 89-378491 890711, Div ex US 90-512587 900424, Div ex US 91-769636 911001, US 93-86113 930706; US 5382497 A Cont of US 83-481741 830404, Cont of US 85-756570 850718, Cont of US 08/479,077

87-53563 870521, Div ex US 89-378491 890711, Div ex US 90-512587  
900424, Div ex US 91-769636 911001, Div ex US 93-86113 930706, US  
94-221904 940401

FDT US 5246814 A Div ex US 5079127; US 5278026 A Div ex US 5079128; US  
5320930 A Div ex US 5079127, Div ex US 5246814; US 5382497 A Div ex  
US 5079127, Div ex US 5246814, Div ex US 5320930

PRAI JP 82-56963 820406; JP 82-64926 820419; JP 82-64927 820419;  
JP 82-64928 820419; JP 82-102579 820614; JP 82-102580 820614;  
JP 82-103603 820616; JP 82-103604 820616; JP 82-123144 820715

L5 ANSWER 34 OF 35 WPIDS COPYRIGHT 1996 DERWENT INFORMATION LTD

AN 83-732691 [32] WPIDS

DNN N83-139662 DNC C83-075981

TI Light information recording component - comprising organic thin film  
contg. squarilium dye and binder supported on base plate.

DC A89 E24 G06 P75

PA (RICO) RICOH KK

CYC 1

PI JP 58112792 A 830705 (8332)\* 4 pp <--

PRAI JP 81-209931 811228

AB JP58112792 A UPAB: 930925

Light information recording component with which records are produced by changing the state with high-density energy beam, comprises (A) an organic thin film layer, contg. (a) squarilium dye of formula (I) and (b) binder as the main components, supported on (B) a base plate. In the formula, X is colour-formation gp. Binders (b) are, e.g., polyvinylbutyral resin, nitrocellulose, etc. The amt. of (a) is 0.1-1 pts. wt./pts. wt. (a). The thickness of (A) is 0.1-5 microns. Plate (B) is made of, e.g. glass, ceramics, plastic paper, etc. Layer (A) is formed by coating method. The recording component has high sensitivity and high S/N (signal to noise) ratio. Layer (A) is formed by applying solvent soln. of (A) and (b) on (B) by spraying, dipping, etc. The solvents are, e.g. methanol, acetone, methylene dichloride, etc.

0/1

PI JP 58112792 A 830705 (8332)\* 4 pp <--

PRAI JP 81-209931 811228

L5 ANSWER 35 OF 35 WPIDS COPYRIGHT 1996 DERWENT INFORMATION LTD

AN 81-43215D [24] WPIDS

08/479,077

TI Recording medium using change in optical density - caused by optical or thermal energy, contains a squalylium dye contg. two chromophore Gps..

DC E24 G06 P75 P83

PA (NITE) NIPPON TELEGRAPH & TELEPHONE CORP

CYC 1

PI JP 56046221 A 810427 (8124)\* <--

JP 62036878 B 870810 (8735)

ADT JP 56046221 A JP 79-120138 790920

PRAI JP 79-120138 790920

AB JP56046221 A UPAB: 930915

Medium (II) change in optical density caused by application of optical or thermal energy (II) is obtd. by providing on base plate organic thin layer comprising of squalylium dye of formula (I) X is chromophore. The positive change is free to move to the other chromophore. (II) enables recording to be done by light of relatively longer wavelengths (e.g. semiconductor lasers). (II) has a thin recording layer with excellent reproducibility of compsn., uniformity; contrast, resolution and stability. (I) has sensitivity equal to that of a Te oxide thin film. Squalylium dye is pref. prep'd. by condensn. of 3,4-dihydroxy-3-cyclobutene-1,2-dione and corresp. chromophore, (I) is e.g. (III) The dyes exhibit sublimation in a narrow temp. range (e.g. 280 deg.C), thin layers can be obtd. by evaporating the cpds. onto a base plate (e.g. polyester film, teflon film, glass or metal foil).

PI JP 56046221 A 810427 (8124)\* <--

JP 62036878 B 870810 (8735)

ADT JP 56046221 A JP 79-120138 790920

PRAI JP 79-120138 790920

=> d his

(FILE 'HOME' ENTERED AT 14:02:45 ON 17 JUN 96)

FILE 'REGISTRY' ENTERED AT 14:03:23 ON 17 JUN 96

L1 STRUCTURE uploaded

L2 4 S L1

L3 30 S L1 FULL

FILE 'CA' ENTERED AT 14:13:18 ON 17 JUN 96

08/479,077

L4

45 S L3  
SEL PN 1-45

FILE 'WPIDS' ENTERED AT 14:27:46 ON 17 JUN 96

L5

35 S E1-E37

[USER ABORT]

[USER ABORT]

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NEWS 3 Aug 4 Macintosh STN Express Users of C(O)CH3 Shortcut  
NEWS 4 Jun 11 INPADOC/INPAMONITOR: New SDI Options Available June 16

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NEWS	INTER	General Internet Information
NEWS	LOGIN	Welcome Banner and News Items
NEWS	PHONE	Direct Dial and Telecommunication Network Access to STN
NEWS	WWW	CAS World Wide Web Site (general information)

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\* The files listed above are temporarily unavailable.

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DICTIONARY FILE UPDATES: 14 JUN 96 HIGHEST RN 177468-61-0

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L1 STRUCTURE UPLOADED

=> s 11 08/479,077

SAMPLE SEARCH INITIATED 12:13:25

SAMPLE SCREEN SEARCH COMPLETED - 28 TO ITERATE

100.0% PROCESSED 28 ITERATIONS

4 ANSWERS

SEARCH TIME: 00.00.04

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*

BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS: 243 TO 877

PROJECTED ANSWERS: 4 TO 200

L2 4 SEA SSS SAM L1

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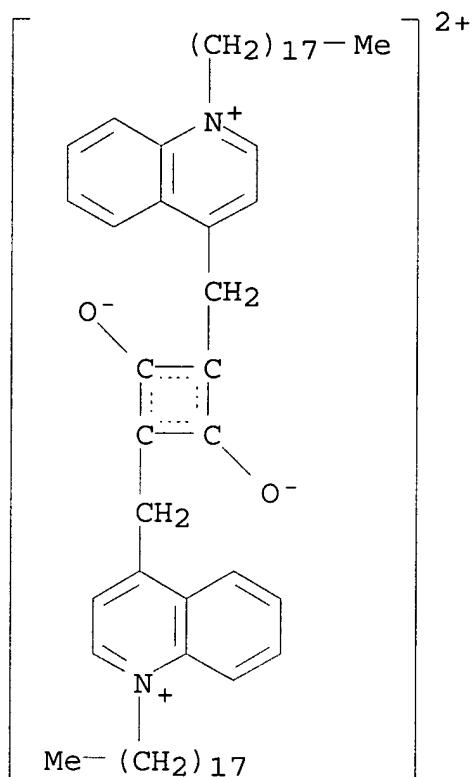
L2 4 ANSWERS REGISTRY COPYRIGHT 1996 ACS

IN Cyclobutenediylium, 1,3-dihydroxy-2,4-bis[(1-octadecylquinolinium-4-yl)methyl]-, bis(inner salt) (9CI)

MF C60 H90 N2 O2

CI CCS, COM

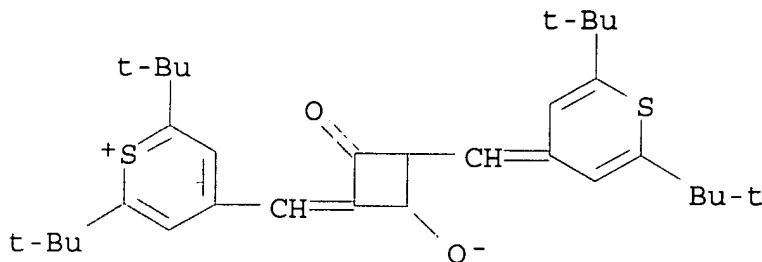
PAGE 1-A



PAGE 2-A

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L2 4 ANSWERS REGISTRY COPYRIGHT 1996 ACS  
IN Thiopyrylium, 4-[ [3-[ [2,6-bis(1,1-dimethylethyl)-4H-thiopyran-4-ylidene]methyl]-2-hydroxy-4-oxoclobutylidene]methyl]-2,6-bis(1,1-dimethylethyl)-, inner salt (9CI)  
MF C32 H44 O2 S2

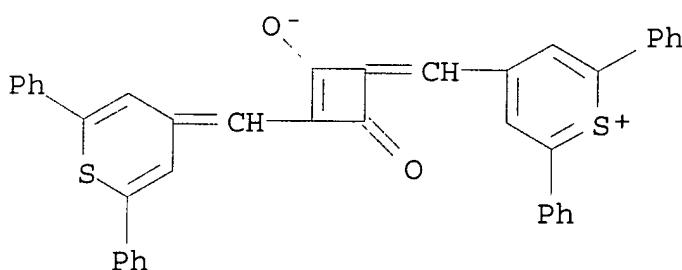


HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L2 4 ANSWERS REGISTRY COPYRIGHT 1996 ACS

IN Thiopyrylium, 4-[[3-[(2,6-diphenyl-4H-thiopyran-4-ylidene)methyl]-2-hydroxy-4-oxo-2-cyclobuten-1-ylidene]methyl]-2,6-diphenyl- (9CI)

MF C40 H26 O2 S2



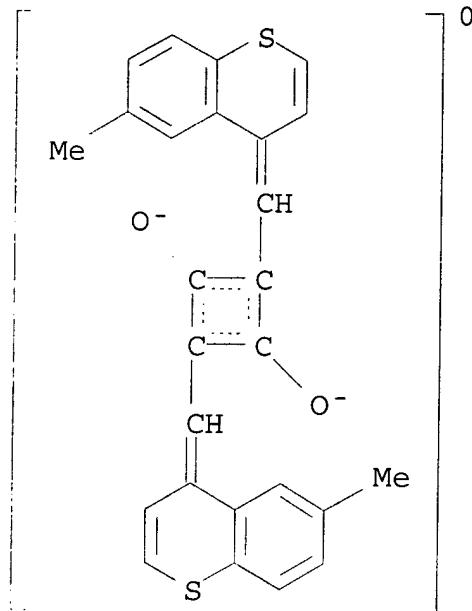
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L2 4 ANSWERS REGISTRY COPYRIGHT 1996 ACS

IN Cyclobutenediylium, 1,3-dihydroxy-2,4-bis[(6-methyl-4H-1-benzothiopyran-4-ylidene)methyl]-, bis(inner salt) (9CI)

MF C26 H18 O2 S2

CI CCS



ALL ANSWERS HAVE BEEN SCANNED

=> s l1 full

FULL SEARCH INITIATED 12:14:26

FULL SCREEN SEARCH COMPLETED - 630 TO ITERATE

100.0% PROCESSED 630 ITERATIONS

30 ANSWERS

SEARCH TIME: 00.00.11

L3

30 SEA SSS FUL L1

=> file hca

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

FULL ESTIMATED COST

ENTRY

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=> s l3  
L4            45 L3

=> d 45 pd  
'PD' IS NOT A VALID FORMAT FOR FILE 'HCA'

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APPS ----- AI, PRAI  
BIB ----- AN, plus Bibliographic Data (default)  
CAN ----- List of CA abstract numbers without answer numbers  
CBIB ----- AN, plus Compressed Bibliographic Data  
DALL ----- ALL, delimited (end of each field identified)  
IND ----- Indexing data  
IPC ----- International Patent Classifications  
MAX ----- Same as ALL  
PATS ----- PI, SO  
SAM ----- CC, SX, TI, ST, IT  
SCAN ----- CC, SX, TI, ST, IT (random display, no answer numbers;  
                  SCAN must be entered on the same line as the DISPLAY,  
                  e.g., D SCAN or DISPLAY SCAN)  
STD ----- BIB, IPC, and NCL  
  
IABS ----- ABS, indented with text labels  
IALL ----- ALL, indented with text labels  
IBIB ----- BIB, indented with text labels

ISTD ----- STD, indented with text labels

HIT ----- Fields containing hit terms

HITIND ----- IC, ICA, ICI, NCL, CC and index field (ST and IT) containing hit terms

HITRN ----- HIT RN and its text modification

HITSTR ----- HIT RN, its text modification, its CA index name, and its structure diagram

KWIC ----- Hit term plus 20 words on either side

OCC ----- Number of occurrence of hit term and field in which it occurs

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All of the formats (except for SAM, SCAN, HIT, HITIND, HITRN, HITSTR, KWIC, and OCC) may be used with DISPLAY ACC to view a specified Accession Number.

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L4 ANSWER 45 OF 45 HCA COPYRIGHT 1996 ACS  
AN 95:178630 HCA  
TI Laser recording materials  
PA Nippon Telegraph and Telephone Public Corp., Japan  
SO Jpn. Kokai Tokkyo Koho, 5 pp.  
CODEN: JKXXAF  
PI JP 56046221 810427 Showa  
AI JP 79-120138 790920  
DT Patent  
LA Japanese

=> s l4 and py>1991  
2491638 PY>1991  
L5 19 L4 AND PY>1991

=> s l4 and py>1990  
3040436 PY>1990

L6 21 L4 AND PY>1990

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 FULL ESTIMATED COST

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5.58	114.37

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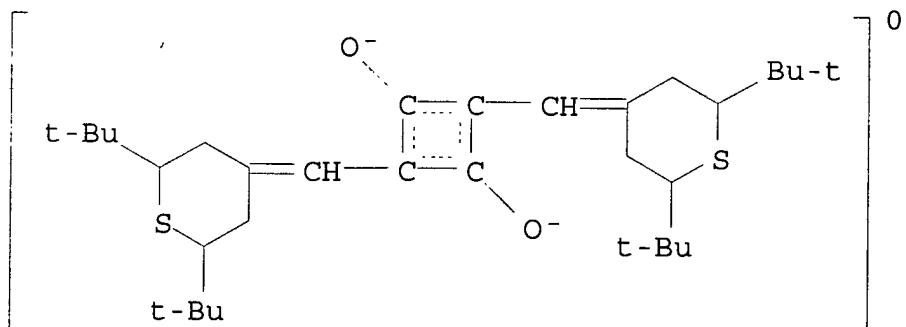
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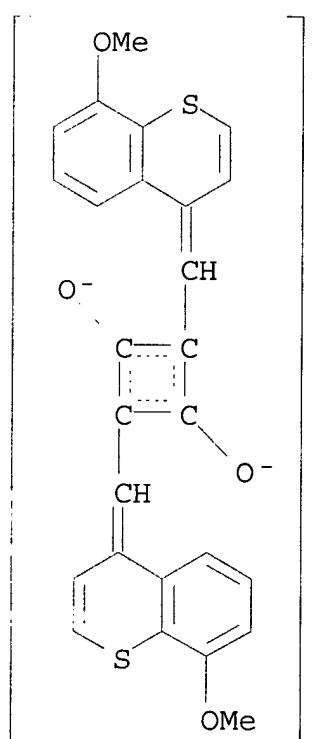
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L3 30 ANSWERS REGISTRY COPYRIGHT 1996 ACS  
 IN Cyclobutenediylium, 1,3-bis[[2,6-bis(1,1-dimethylethyl)tetrahydro-4H-thiopyran-4-ylidene]methyl]-2,4-dihydroxy-, bis(inner salt) (9CI)  
 MF C32 H50 O2 S2  
 CI CCS



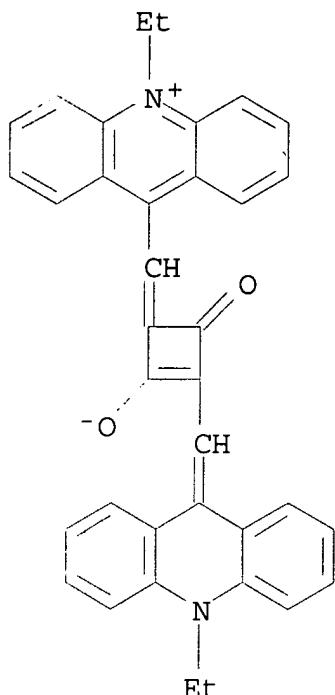
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3 30 ANSWERS REGISTRY COPYRIGHT 1996 ACS  
IN Cyclobutenediylium, 1,3-dihydroxy-2,4-bis[(8-methoxy-4H-1-benzothiopyran-4-ylidene)methyl]-, bis(inner salt) (9CI)  
MF C26 H18 O4 S2  
CI CCS



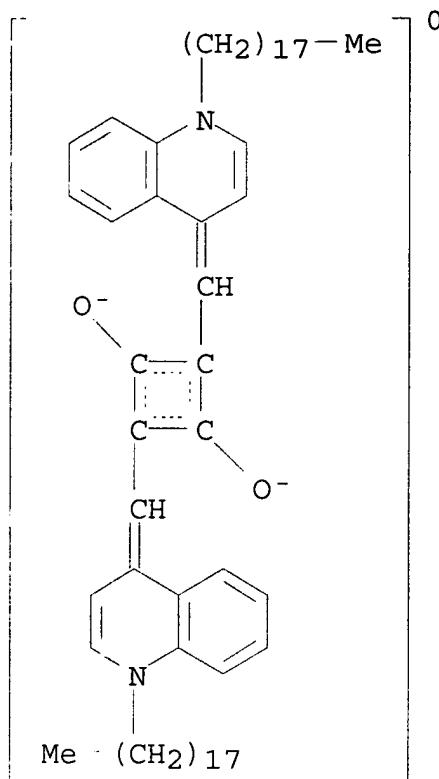
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3 30 ANSWERS REGISTRY COPYRIGHT 1996 ACS  
IN Acridinium, 10-ethyl-9-[3-[(10-ethyl-9(10H)-acridinylidene)methyl]-2-hydroxy-4-oxo-2-cyclobuten-1-ylidene]methyl-, inner salt (9CI)  
MF C36 H28 N2 O2



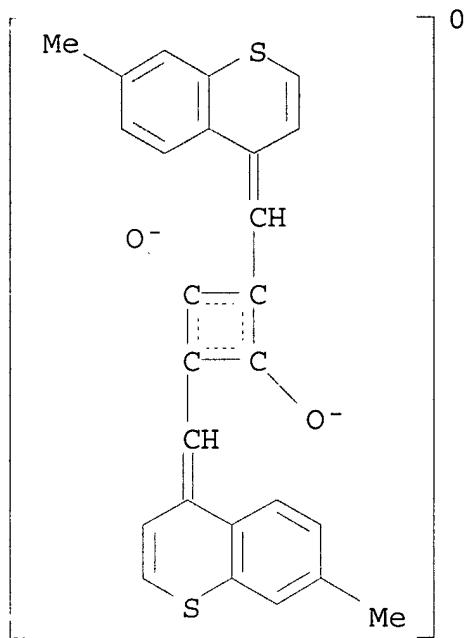
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3 30 ANSWERS  REGISTRY  COPYRIGHT 1996 ACS  
IN Cyclobutenediylium, 1,3-dihydroxy-2,4-bis[(1-octadecyl-4(1H)-  
quinolinylidene)methyl]-, bis(inner salt) (9CI)  
MF C60 H88 N2 O2  
CI CCS



HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3 30 ANSWERS REGISTRY COPYRIGHT 1996 ACS  
IN Cyclobutenediylium, 1,3-dihydroxy-2,4-bis[(7-methyl-4H-1-benzothiopyran-4-ylidene)methyl]-, bis(inner salt) (9CI)  
MF C26 H18 O2 S2  
CI CCS

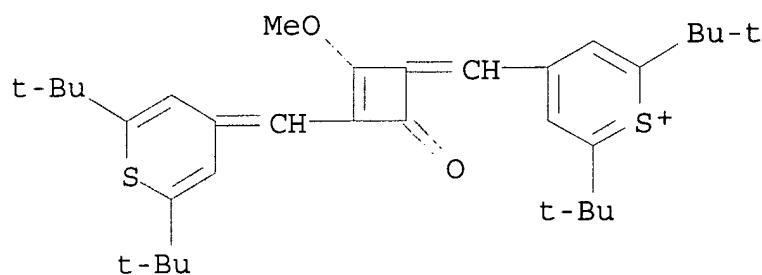


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HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

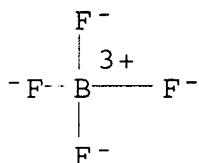
L3 30 ANSWERS REGISTRY COPYRIGHT 1996 ACS  
IN Thiopyrylium, 4-[ [3-[ [2,6-bis(1,1-dimethylethyl)-4H-thiopyran-4-ylidene]methyl]-2-methoxy-4-oxo-2-cyclobuten-1-ylidene]methyl]-2,6-bis(1,1-dimethylethyl)-, tetrafluoroborate(1-) (9CI)  
MF C33 H45 O2 S2 . B F4

CM 1



08/479,077

CM 2



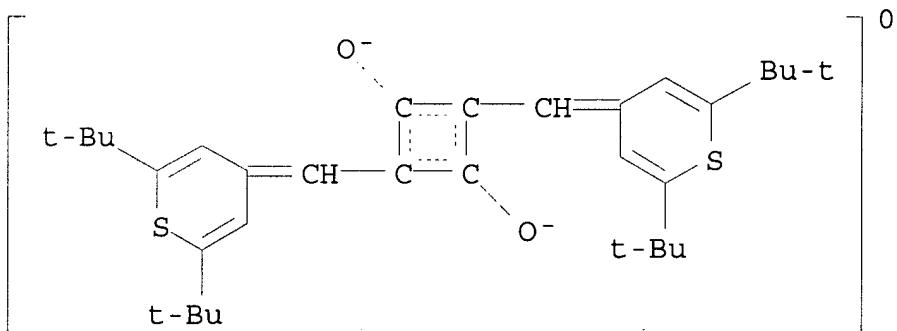
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3 30 ANSWERS REGISTRY COPYRIGHT 1996 ACS

IN Cyclobutenediylium, 1,3-bis[[2,6-bis(1,1-dimethylethyl)-4H-thiopyran-4-ylidene]methyl]-2,4-dihydroxy-, bis(inner salt) (9CI)

MF C32 H42 O2 S2

CI CCS



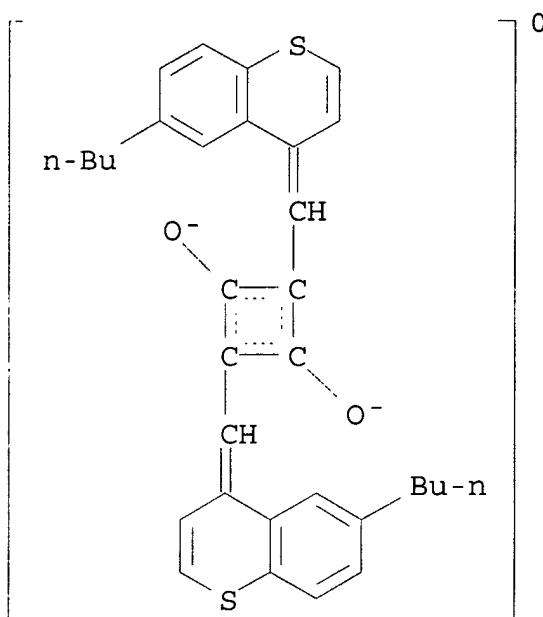
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3 30 ANSWERS REGISTRY COPYRIGHT 1996 ACS

IN Cyclobutenediylium, 1,3-bis[(6-butyl-4H-1-benzothiopyran-4-ylidene)methyl]-2,4-dihydroxy-, bis(inner salt) (9CI)

MF C32 H30 O2 S2

CI CCS



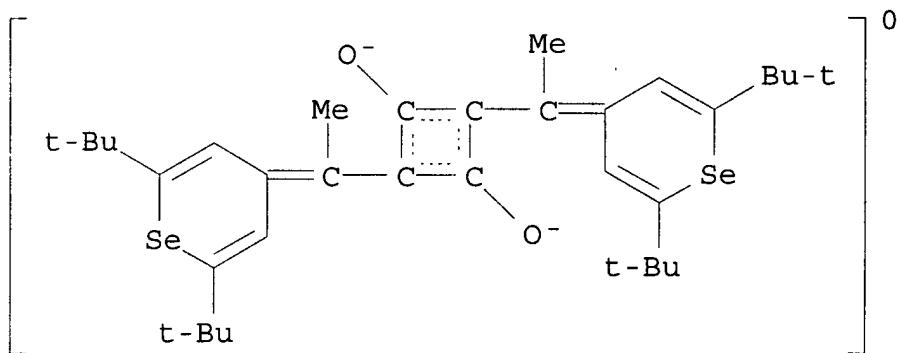
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3 30 ANSWERS REGISTRY COPYRIGHT 1996 ACS

IN Cyclobutenediylium, 1,3-bis[1-[2,6-bis(1,1-dimethylethyl)-4H-selenin-4-ylidene]ethyl]-2,4-dihydroxy-, bis(inner salt) (9CI)

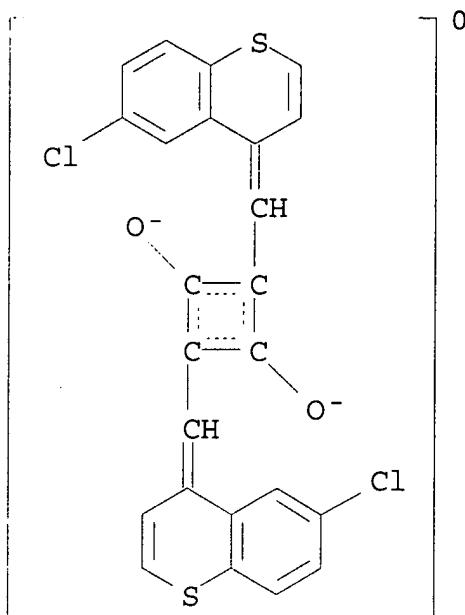
MF C34 H46 O2 Se2

CI CCS



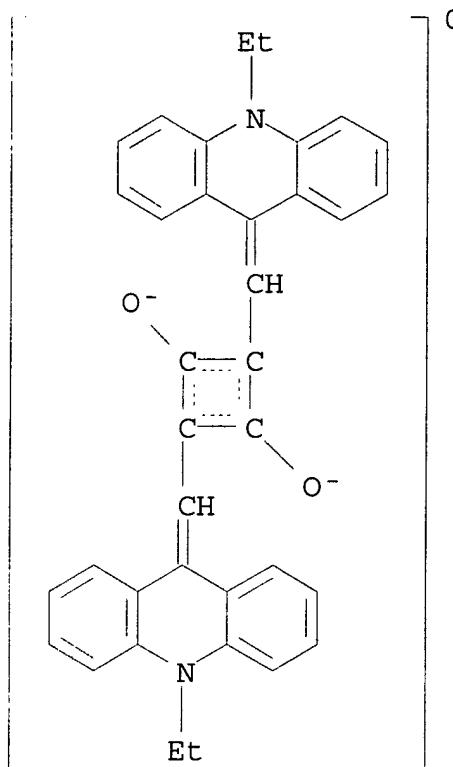
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3 30 ANSWERS REGISTRY COPYRIGHT 1996 ACS  
IN Cyclobutenediylium, 1,3-bis[(6-chloro-4H-1-benzothiopyran-4-ylidene)methyl]-2,4-dihydroxy-, bis(inner salt) (9CI)  
MF C24 H12 Cl2 O2 S2  
CI CCS



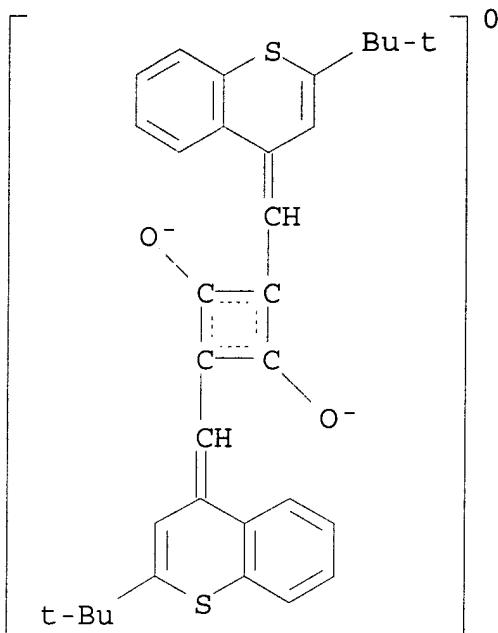
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3 30 ANSWERS REGISTRY COPYRIGHT 1996 ACS  
IN Cyclobutenediylium, 1,3-bis[(10-ethyl-9(10H)-acridinylidene)methyl]-  
2,4-dihydroxy-, bis(inner salt) (9CI)  
MF C36 H28 N2 O2  
CI CCS



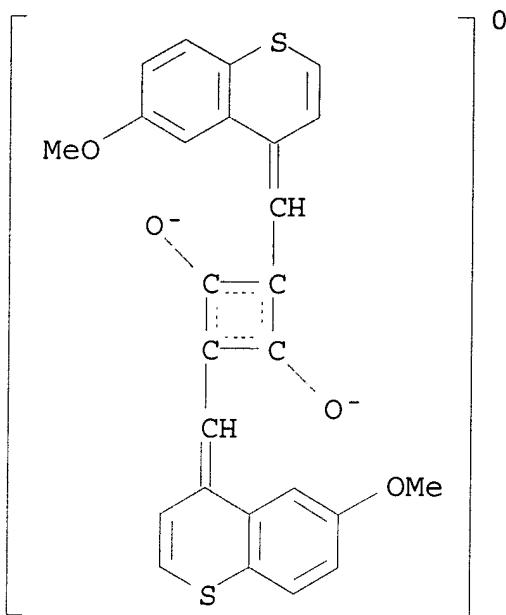
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3 30 ANSWERS REGISTRY COPYRIGHT 1996 ACS  
IN Cyclobutenediylium, 1,3-bis[[2-(1,1-dimethylethyl)-4H-1-benzothiopyran-4-ylidene]methyl]-2,4-dihydroxy-, bis(inner salt) (9CI)  
MF C32 H30 O2 S2  
CI CCS



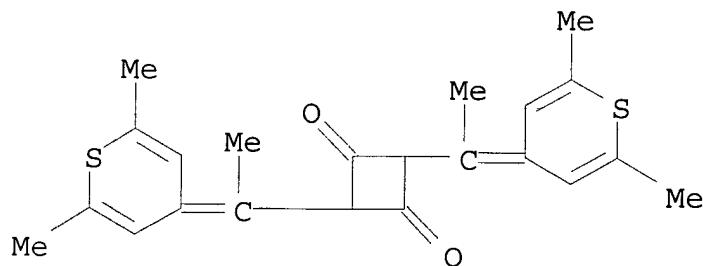
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3 30 ANSWERS REGISTRY COPYRIGHT 1996 ACS  
IN Cyclobutenediylium, 1,3-dihydroxy-2,4-bis[(6-methoxy-4H-1-benzothiopyran-4-ylidene)methyl]-, bis(inner salt) (9CI)  
MF C26 H18 O4 S2  
CI CCS



HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3 30 ANSWERS REGISTRY COPYRIGHT 1996 ACS  
IN 1,3-Cyclobutanedione, 2,4-bis[1-(2,6-dimethyl-4H-thiopyran-4-ylidene)ethyl] - (9CI)  
MF C22 H24 O2 S2



HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

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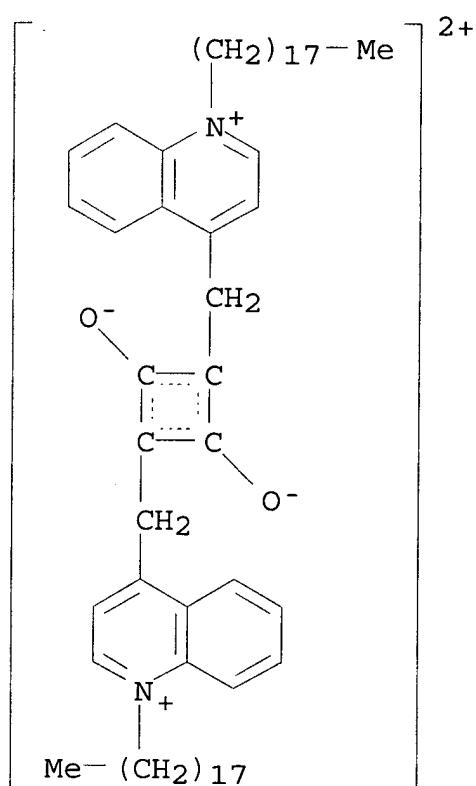
L3 30 ANSWERS REGISTRY COPYRIGHT 1996 ACS

IN Cyclobutenediylium, 1,3-dihydroxy-2,4-bis[(1-octadecylquinolinium-4-yl)methyl]-, bis(inner salt), salt with 4-chlorobenzenesulfonic acid (1:2) (9CI)

MF C60 H90 N2 O2 . 2 C6 H4 Cl O3 S

CM 1

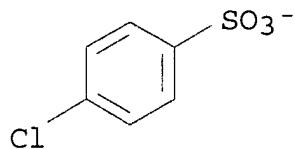
PAGE 1-A



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CM 2

08/479,077



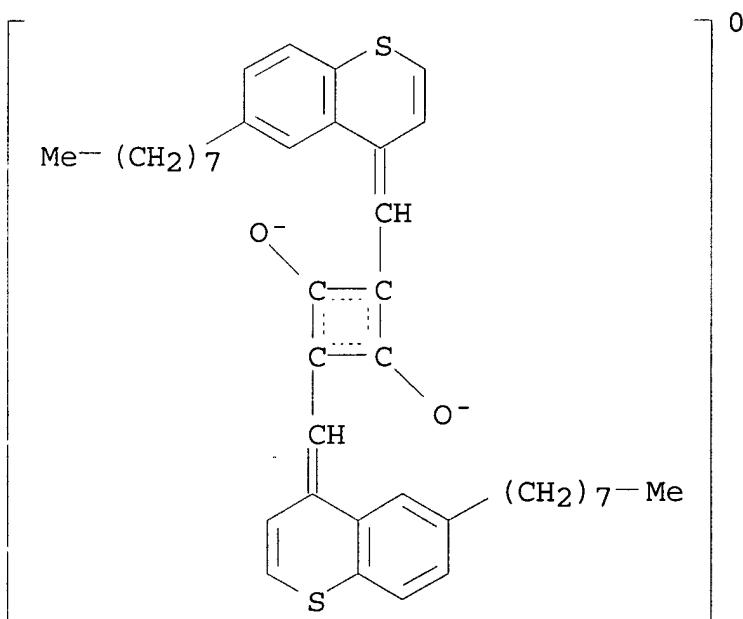
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3 30 ANSWERS REGISTRY COPYRIGHT 1996 ACS

IN Cyclobutenediylium, 1,3-dihydroxy-2,4-bis[(6-octyl-4H-1-benzothiopyran-4-ylidene)methyl]-, bis(inner salt) (9CI)

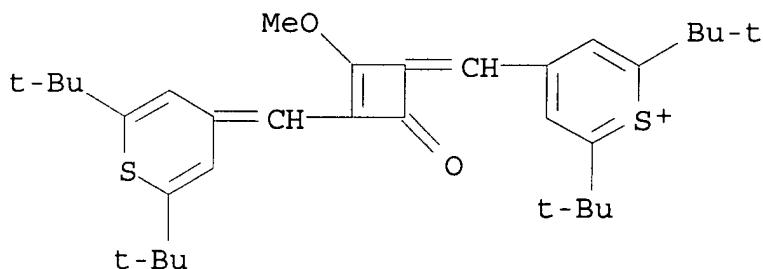
MF C40 H46 O2 S2

CI CCS



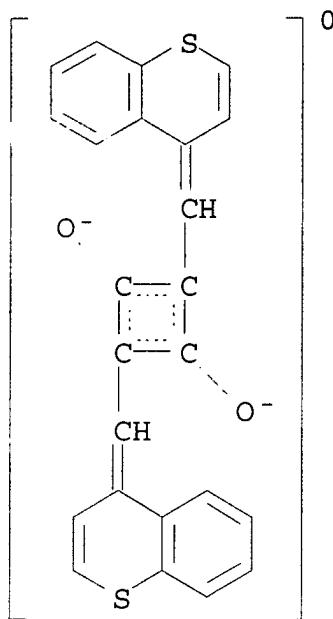
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3 30 ANSWERS REGISTRY COPYRIGHT 1996 ACS  
IN Thiopyrylium, 4-[ [3-[[2,6-bis(1,1-dimethylethyl)-4H-thiopyran-4-ylidene]methyl]-2-methoxy-4-oxo-2-cyclobuten-1-ylidene]methyl]-2,6-bis(1,1-dimethylethyl)- (9CI)  
MF C33 H45 O2 S2  
CI COM



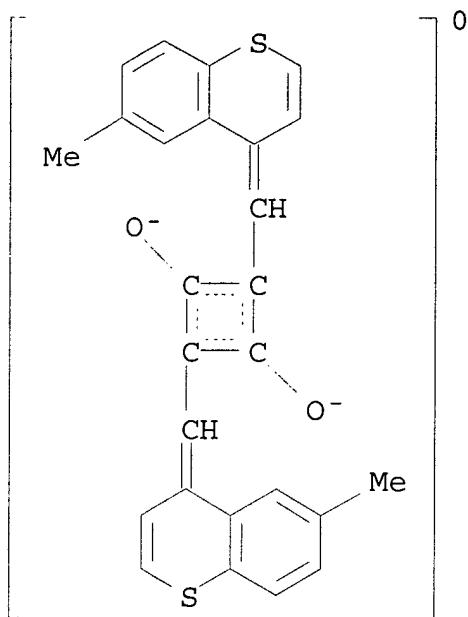
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3 30 ANSWERS REGISTRY COPYRIGHT 1996 ACS  
IN Cyclobutenediylium, 1,3-bis(4H-1-benzothiopyran-4-ylidenemethyl)-2,4-dihydroxy-, bis(inner salt) (9CI)  
MF C24 H14 O2 S2  
CI CCS



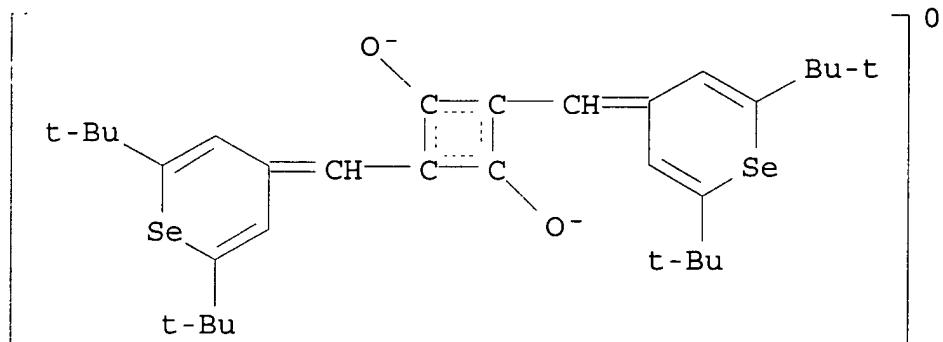
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3 30 ANSWERS REGISTRY COPYRIGHT 1996 ACS  
IN Cyclobutenediylium, 1,3-dihydroxy-2,4-bis[(6-methyl-4H-1-benzothiopyran-4-ylidene)methyl]-, bis(inner salt) (9CI)  
MF C26 H18 O2 S2  
CI CCS



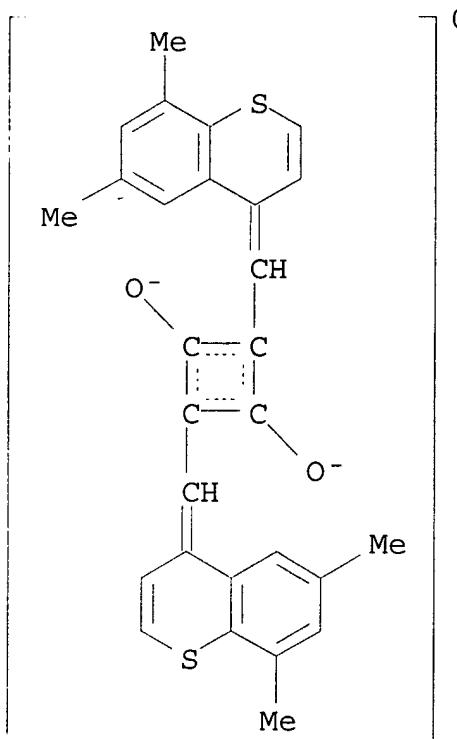
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3 30 ANSWERS REGISTRY COPYRIGHT 1996 ACS  
IN Cyclobutenediylium, 1,3-bis[[2,6-bis(1,1-dimethylethyl)-4H-selenin-4-ylidene]methyl]-2,4-dihydroxy-, bis(inner salt) (9CI)  
MF C32 H42 O2 Se2  
CI CCS



HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3 30 ANSWERS REGISTRY COPYRIGHT 1996 ACS  
IN Cyclobutenediylium, 1,3-bis[(6,8-dimethyl-4H-1-benzothiopyran-4-ylidene)methyl]-2,4-dihydroxy-, bis(inner salt) (9CI)  
MF C28 H22 O2 S2  
CI CCS

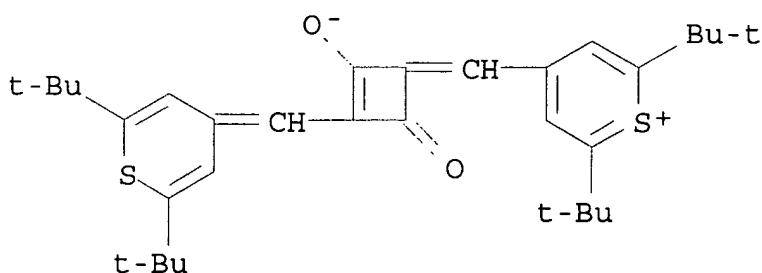


HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3 30 ANSWERS REGISTRY COPYRIGHT 1996 ACS

IN Thiopyrylium, 4-[ [3-[ [2,6-bis(1,1-dimethylethyl)-4H-thiopyran-4-ylidene]methyl]-2-hydroxy-4-oxo-2-cyclobuten-1-ylidene]methyl]-2,6-bis(1,1-dimethylethyl)-, inner salt (9CI)

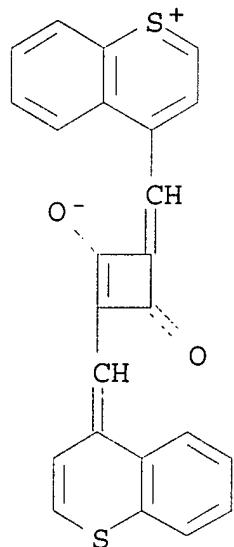
MF C32 H42 O2 S2



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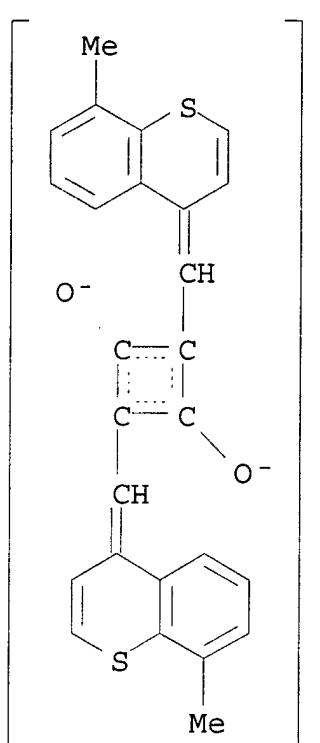
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3 30 ANSWERS REGISTRY COPYRIGHT 1996 ACS  
IN 1-Benzothiopyrylium, 4-[[3-(4H-1-benzothiopyran-4-ylidenemethyl)-2-hydroxy-4-oxo-2-cyclobuten-1-ylidene]methyl]-, inner salt (9CI)  
MF C24 H14 O2 S2



HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3 30 ANSWERS REGISTRY COPYRIGHT 1996 ACS  
IN Cyclobutenediylium, 1,3-dihydroxy-2,4-bis[(8-methyl-4H-1-benzothiopyran-4-ylidene)methyl]-, bis(inner salt) (9CI)  
MF C26 H18 O2 S2  
CI CCS

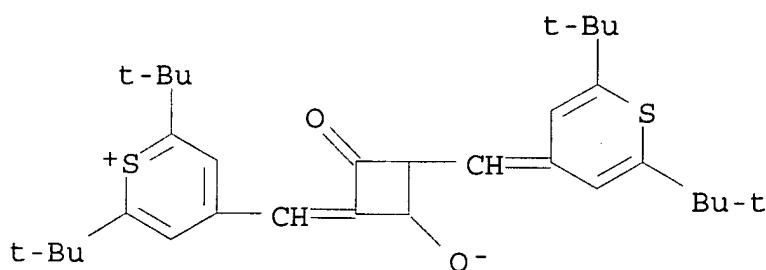


HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3 30 ANSWERS REGISTRY COPYRIGHT 1996 ACS

IN Thiopyrylium, 4-[[3-[[2,6-bis(1,1-dimethylethyl)-4H-thiopyran-4-ylidene]methyl]-2-hydroxy-4-oxoclobutylidene]methyl]-2,6-bis(1,1-dimethylethyl)-, inner salt (9CI)

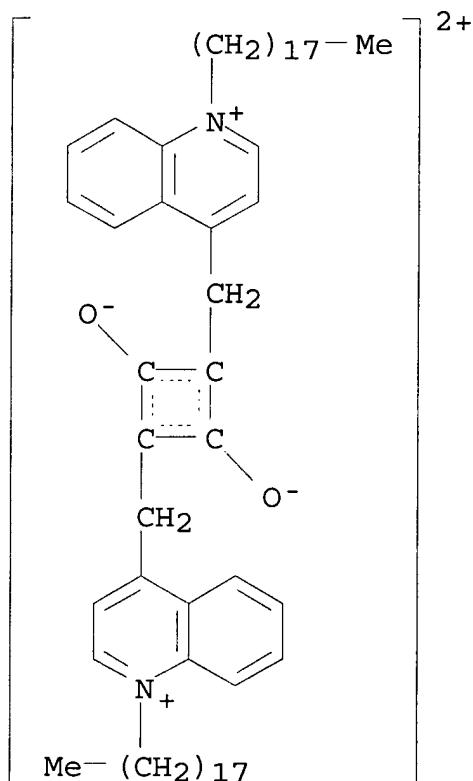
MF C32 H44 O2 S2



HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3 30 ANSWERS REGISTRY COPYRIGHT 1996 ACS  
IN Cyclobutenediylium, 1,3-dihydroxy-2,4-bis[(1-octadecylquinolinium-4-yl)methyl]-, bis(inner salt) (9CI)  
MF C60 H90 N2 O2  
CI CCS, COM

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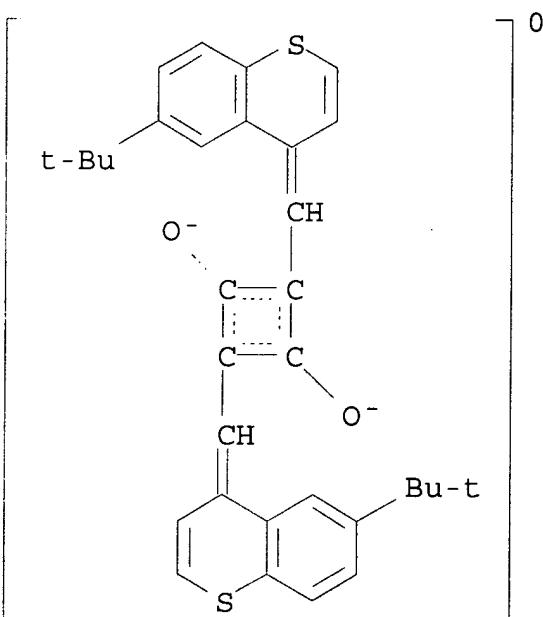


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HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

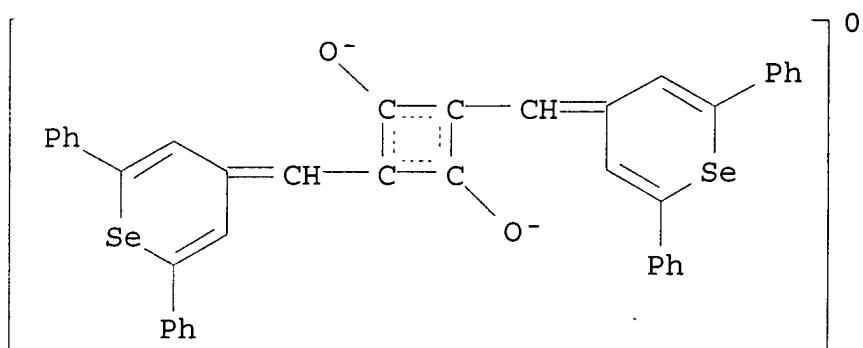
08/479,077

L3 30 ANSWERS REGISTRY COPYRIGHT 1996 ACS  
IN Cyclobutenediylium, 1,3-bis[[6-(1,1-dimethylethyl)-4H-1-benzothiopyran-4-ylidene]methyl]-2,4-dihydroxy-, bis(inner salt) (9CI)  
MF C32 H30 O2 S2  
CI CCS



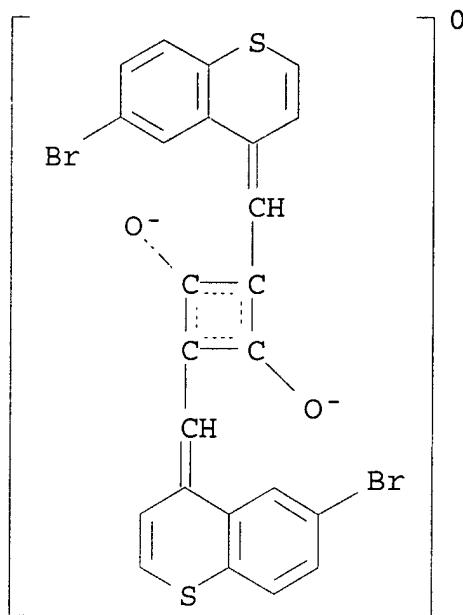
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):  
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3 30 ANSWERS REGISTRY COPYRIGHT 1996 ACS  
IN Cyclobutenediylium, 1,3-bis[(2,6-diphenyl-4H-selenin-4-ylidene)methyl]-2,4-dihydroxy-, bis(inner salt) (9CI)  
MF C40 H26 O2 Se2  
CI CCS



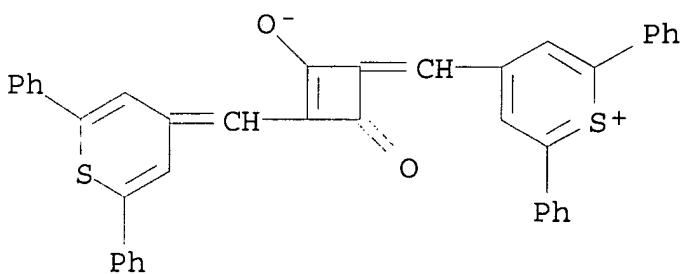
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3 30 ANSWERS REGISTRY COPYRIGHT 1996 ACS  
IN Cyclobutenediylium, 1,3-bis[(6-bromo-4H-1-benzothiopyran-4-ylidene)methyl]-2,4-dihydroxy-, bis(inner salt) (9CI)  
MF C24 H12 Br2 O2 S2  
CI CCS



HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3 30 ANSWERS REGISTRY COPYRIGHT 1996 ACS  
IN Thiopyrylium, 4-[[3-[(2,6-diphenyl-4H-thiopyran-4-ylidene)methyl]-2-hydroxy-4-oxo-2-cyclobuten-1-ylidene]methyl]-2,6-diphenyl- (9CI)  
MF C40 H26 O2 S2



ALL ANSWERS HAVE BEEN SCANNED

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(FILE 'HOME' ENTERED AT 12:09:42 ON 17 JUN 96)

FILE 'REGISTRY' ENTERED AT 12:09:55 ON 17 JUN 96

L1                   STRUCTURE UPLOADED  
L2                   4 S L1  
L3                   30 S L1 FULL

FILE 'HCA' ENTERED AT 12:14:43 ON 17 JUN 96

L4                   45 S L3  
L5                   19 S L4 AND PY>1991  
L6                   21 S L4 AND PY>1990

FILE 'REGISTRY' ENTERED AT 12:16:15 ON 17 JUN 96